# HITACHI
# SERVICE MANUAL

TK | No. 1937E

# VK-C2000E

## REVISED

*Technical Data*

This service manual is a revised edition of the previously issued manual No.1878E; the schematic and circuit board diagrams are added. Please use this manual when servicing the VK-C2000E.

### SAFETY PRECAUTION

The following precautions should be observed when servicing.

1. Since many parts in the unit have special safety-related characteristics, always use genuine Hitachi's replacement parts. Especially critical parts in the power circuit block should not be replaced with other makers. Critical parts are marked with ⚠ in the schematic diagram and circuit board diagram.
2. Before returning a repaired unit to the customer, the service technician must thoroughly test the unit to ascertain that it is completely safe to operate without danger of electrical shock.

SPECIFICATIONS AND PARTS ARE SUBJECT TO CHANGE FOR IMPROVEMENT

## COLOR VIDEO CAMERA

**May 1983** **TOKAI WORKS**

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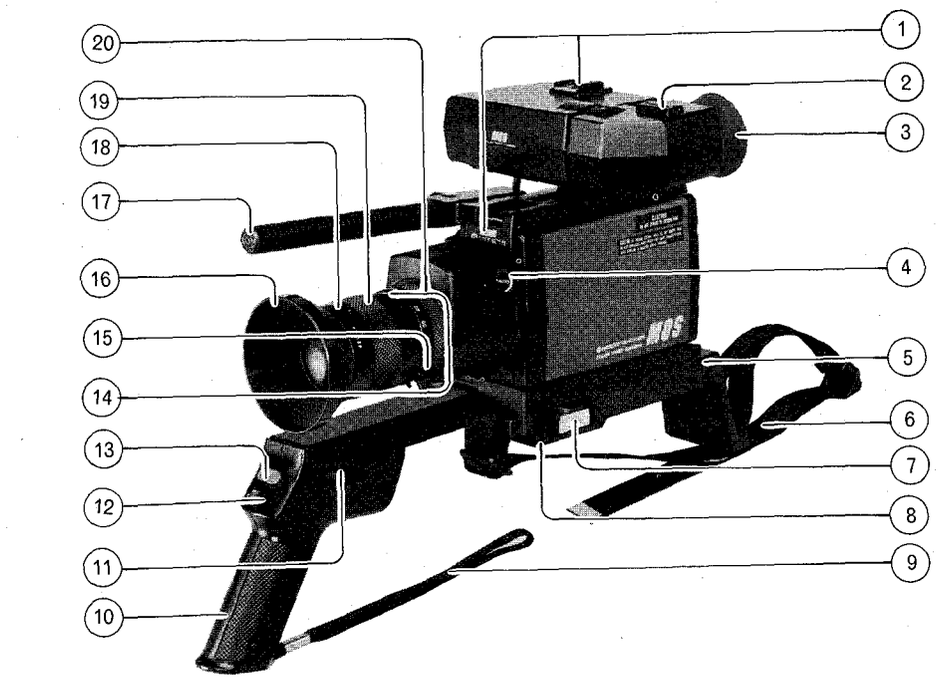
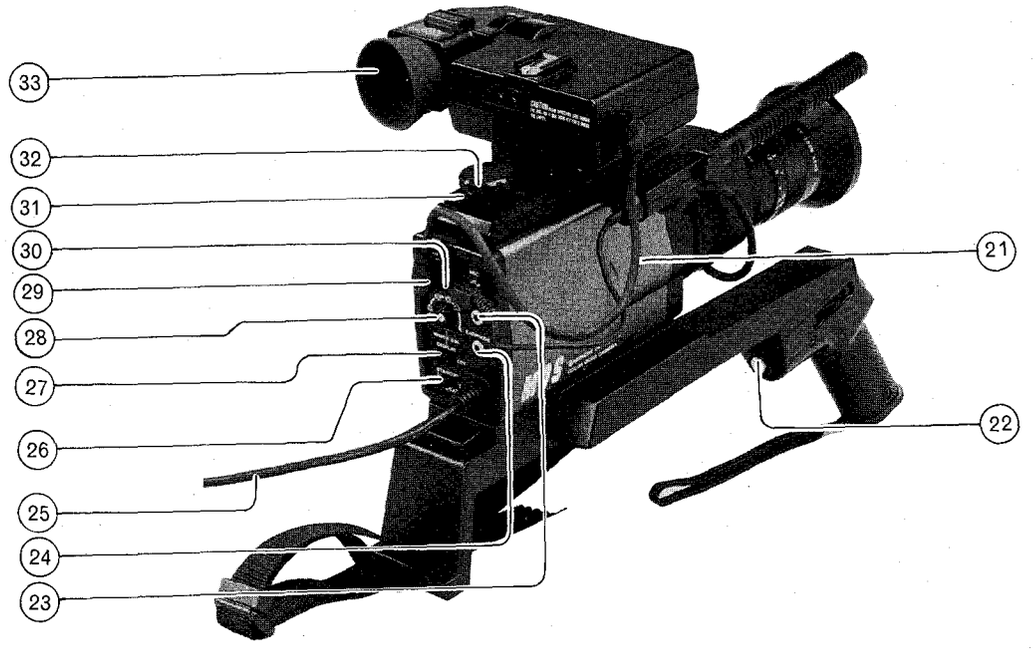
## KEY TO ILLUSTRATIONS




1. Adaptor shoe
2. Electronic viewfinder
3. Eye cup
4. Iris control knob
5. Shoulder pad
6. Shoulder belt
7. Shoulder pad lock lever
8. Shoulder pad fixing screw
9. Hand strap
10. Grip
11. Grip fixing screw
12. Power zoom switch
13. Remote control switch
14. Macro switch
15. Zoom lever
16. Lens hood
17. Shotgun type microphone
18. Zoom lens
19. Focus adjust ring
20. Zooming ring
21. Electronic viewfinder connection cable
22. Instant review switch
23. External microphone jack
24. Earphone jack
25. Camera cable
26. Stand-by switch
27. White balance check switch
28. White balance control knob
29. Electronic viewfinder connection terminal
30. Shotgun type microphone connection terminal
31. Electronic viewfinder locking lever
32. Electronic viewfinder lock screw
33. Diopter control ring

## SPECIFICATIONS

| | |
|---|---|
| Pick up device: | NPN 3-layer construction MOS IMAGE SENSOR |
| Colour system: | Based on PAL system |
| Horizontal resolution: | Better than 300 lines |
| Synchronization system: | Internal synchronization (2:1 interlace) |
| External mic input: | −67 dBs, high impedance |
| Audio output: | −20 dBs (78mV rms), low impedance |
| Video output: | 1 Vp-p 75 Ω (unbalanced) |
| Video S/N ratio: | 46 dB or more |
| Automatic sensitivity control range: | 100 ~ 100,000 lux |
| Minimum luminance required: | 100 lux |
| Recommended luminance of object: | 2,000 lux |
| Color temperature control: | From tungsten bulb illumination to cloudy weather |
| Viewfinder: | Electronic viewfinder (1" B/W CRT) |
| Lens (accessory): | F = 1.4, f = 12.5 ~ 75 mm, power zoom (x 6)<br>(Auto iris/manual iris, power zoom with MACRO mechanism) |
| Lens mount: | C mount |
| Dia. of filter screw: | 52 mm, thread pitch 0.75 mm |
| Microphone (accessory): | Sharp directivity shotgun type microphone |
| Power voltage: | DC 12V |
| Power consumption: | 5.5W (during recording), 1.7W (during play-monitor),<br>0.1W (during stand-by) |
| External dimensions: | 176(W) x 288(H) x 298(D) mm<br>(Electronic viewfinder, grip, microphone included)<br>(Shoulder pad excluded) |
| Weight: | 1.7 kg (Electronic viewfinder, grip, microphone included)<br>(Shoulder pad excluded) |
| Camera terminal: | Circular type 10P connector, screw-locking type |
| Accessories: | Electronic viewfinder x 1<br>Shotgun type microphone x 1<br>Electronic viewfinder connection cable x 1<br>Grip x 1<br>Shoulder pad x 1<br>Earphone x 1 |

## DISASSEMBLY

### 1. Names of boards

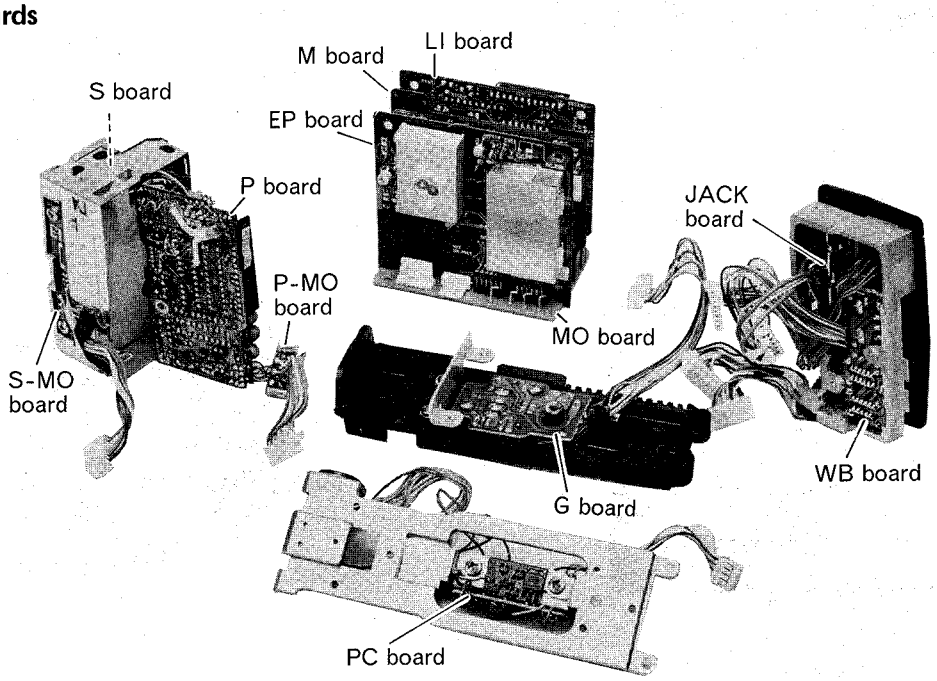



**Fig. 1**

## 2. Disassembling camera

### 1. Microphone, electronic viewfinder, lens, grip (Fig. 2)

1. Turn the shoulder pad installation screw.
2. Turn the microphone installation screw.
3. Turn the viewfinder installation screw.
4. Turn the lens in the direction of the arrow.

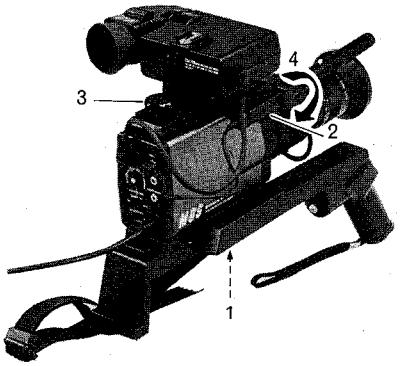



Fig. 2

### 2. Top cover

1. Remove 2 screws.
2. Remove the shoe spring fixing screw to remove the spring.
3. Remove 3 shoe fixing screws at the bottom of the shoe spring.

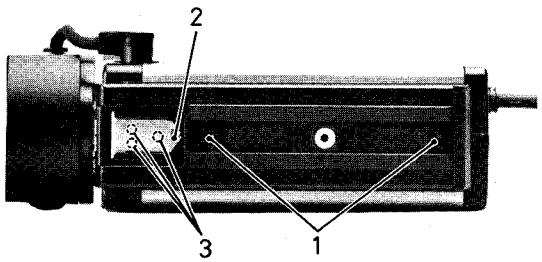



Fig. 3

### 3. Side covers (R, L)

1. Remove the top cover.
2. Remove 8 screws
3. Remove the side covers in the direction of the arrows.

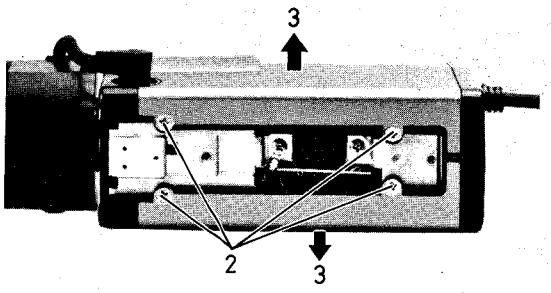



Fig. 4 (A)

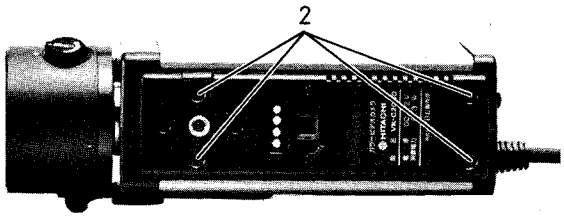



Fig. 4 (B)

### 4. Switch panel

1. Remove the top cover.
2. Remove the side covers.
3. Remove the decorative screw.
4. Pull the panel slightly towards you, and remove the panel when the switch knob is removed from the panel.

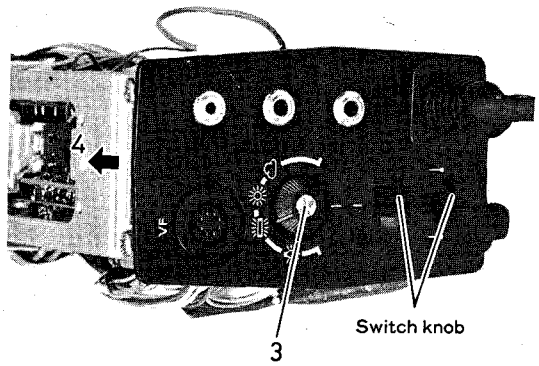



Fig. 5

### 5. EP board

1. Remove the top cover.
2. Remove the side cover.
3. Remove 4 screws.
4. Remove 4 screws, and then remove the frame in the direction of the arrow.
5. Remove the EP board in the direction of the arrow.

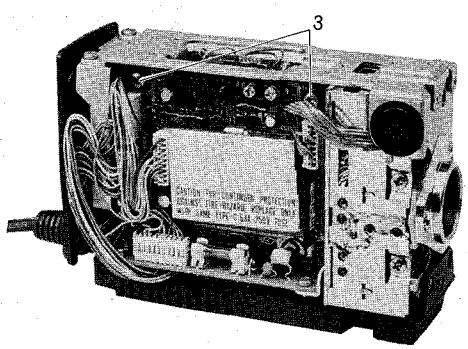



Fig. 6

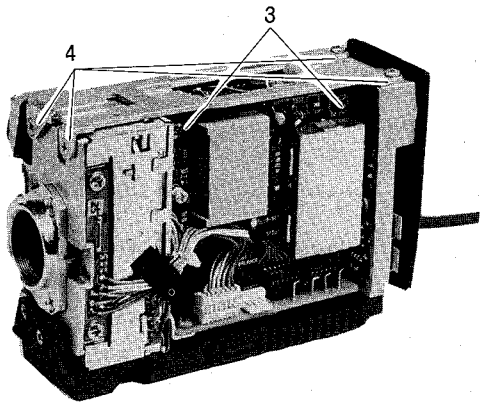



Fig. 7

**6. LI board**

1. Remove the top cover.
2. Remove the side cover.
3. Remove 4 screws.
4. Remove 4 screws and then remove the frame in the direction of the arrow.
5. Insert the (−) screwdriver between the board holder, and the grooves on both sides of the LI board, remove LI board from the board holder, and then remove it in the direction of the arrow.

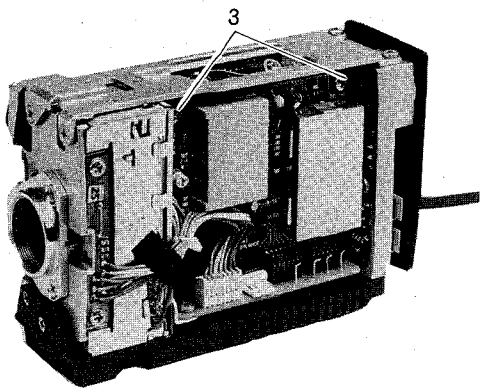



Fig. 8

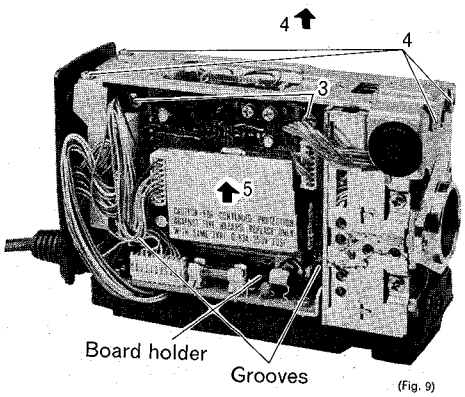



Fig. 9

**7. M board**

1. Remove the top cover.
2. Remove the side cover.
3. Remove the LI board.
4. Insert the (−) screwdriver between the board holder, and the grooves on both sides of the M board, remove M board from the board holder, and then remove it in the direction of the arrow.

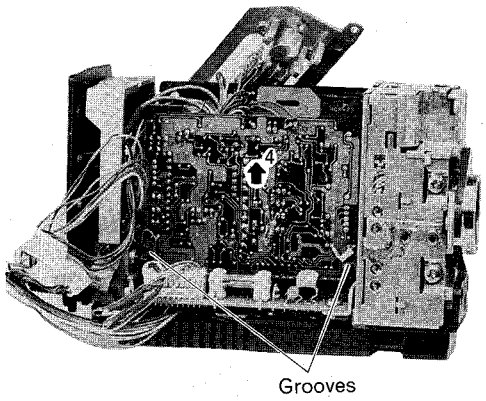



Fig. 10

**8. P-MO board**

1. Remove the top cover.
2. Remove the side cover.
3. Remove 8 screws, and then remove the frame in the direction of the arrow.
4. Remove 2 screws.
5. Remove the shield cover in the direction of the arrow.
6. Remove the P-MO board in the direction of the arrow.
7. Unsolder the leads from the P board.

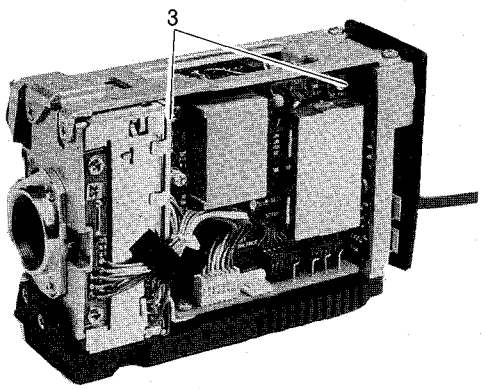



Fig. 11

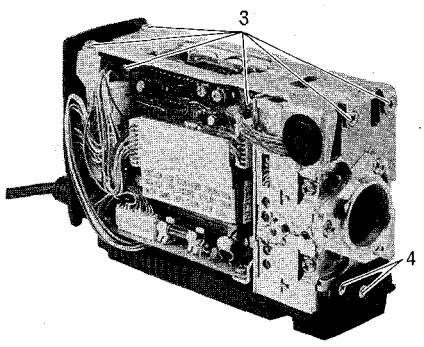



Fig. 12

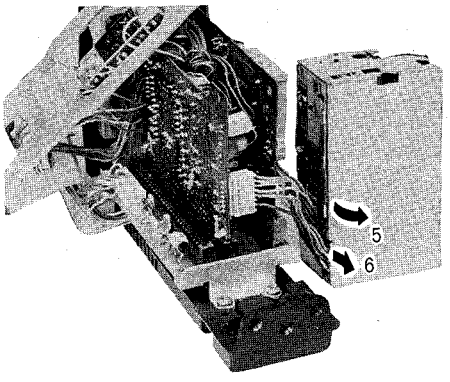



Fig. 13

**9. P board**

1. Remove the top cover.
2. Remove the side cover.
3. Remove the P-MO board.
4. Remove the screw.
5. Remove the P board in the direction of the arrow.

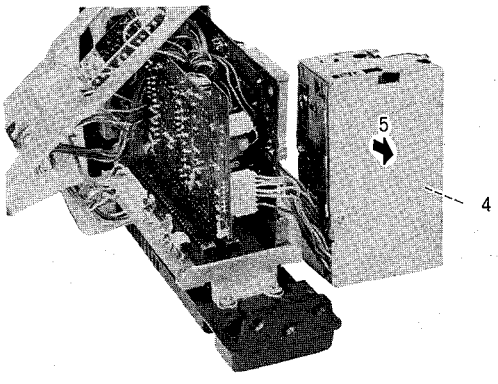



Fig. 14

**10. S board**

1. Remove the top cover.
2. Remove the side cover.
3. Remove the P board.
4. Release the tab fixing the shield cover to remove the cover.
5. Remove the leads from the lead holder.
6. Remove 4 screws.
7. Remove the S board in the direction of the arrow.
8. Remove 3 screws.

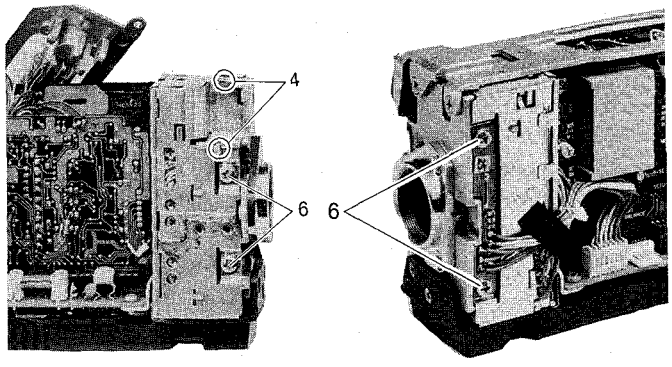



Fig. 15

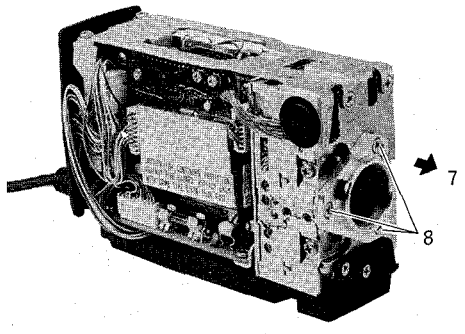



Fig. 16

**11. S-MO board**

1. Remove the top cover.
2. Remove the side cover.
3. Remove 2 screws.
4. Unsolder the leads from the S board.

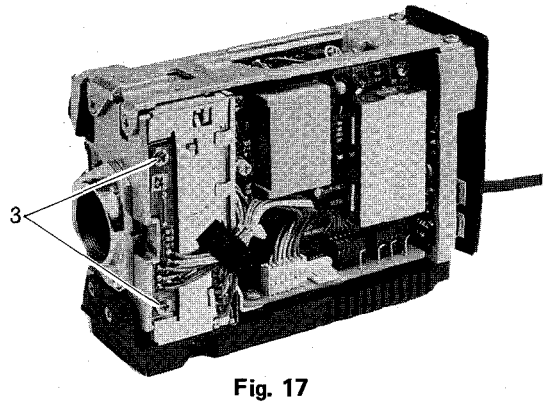



Fig. 17

**12. WB board**

1. Remove the top cover.
2. Remove the side covers.
3. Remove the switch panel.
4. Remove 2 screws.

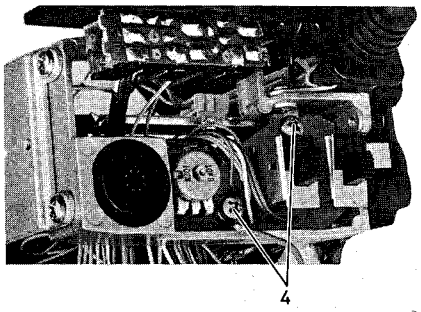



Fig. 18

**13. PC board**

1. Remove the top cover.
2. Remove the side covers.
3. Remove the EP board.
4. Remove 2 screws.

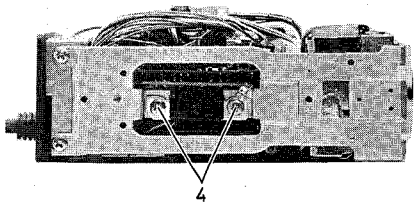



Fig. 19

**14. MO board**

1. Remove the top cover.
2. Remove the side covers.
3. Remove the LI, M and EP boards.
4. Remove the screw to remove the rear frame.
5. Remove 3 screws.

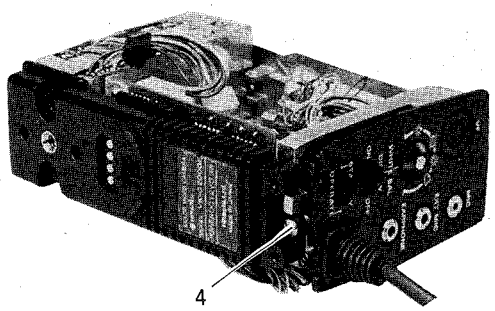



Fig. 20

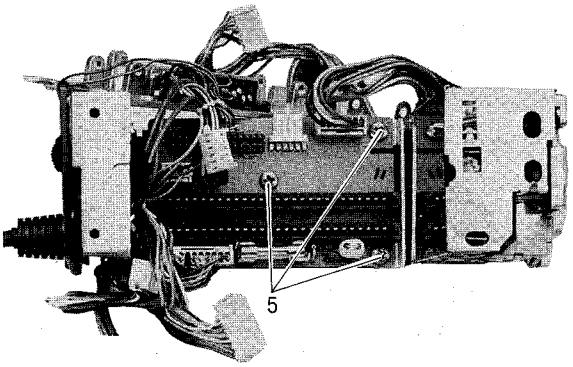



Fig. 21

**15. G board**

1. Remove the top cover.
2. Remove the side covers.
3. Remove the LI, M, EP and MO boards.
4. Remove 2 screws.

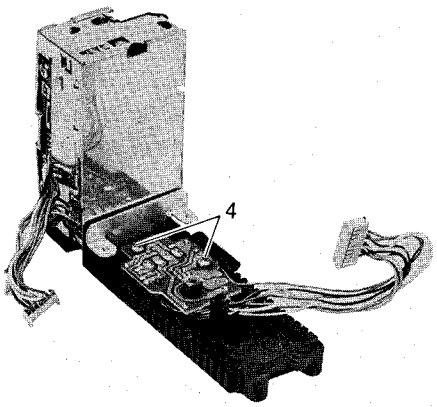



Fig. 22

**16. Jack board**

1. Remove the top cover.
2. Remove the side covers.
3. Remove the switch panel.
4. Remove 3 washers.

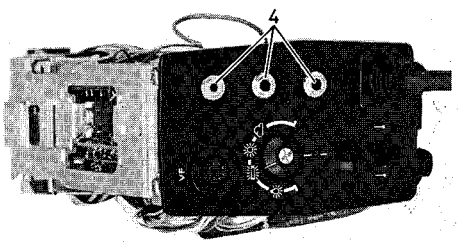



Fig. 23

## 3. Disassembling electronic viewfinder

### 1. Bottom case

1. Remove 3 screws.

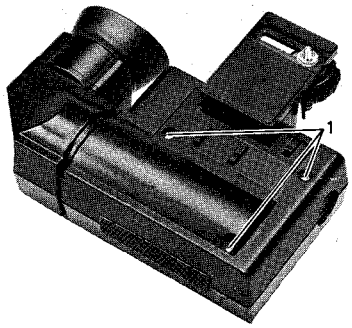



Fig. 24

* Install the case carefully so that the lead is not caught

### 2. REM board

1. Remove the bottom case.
2. Remove the screw.

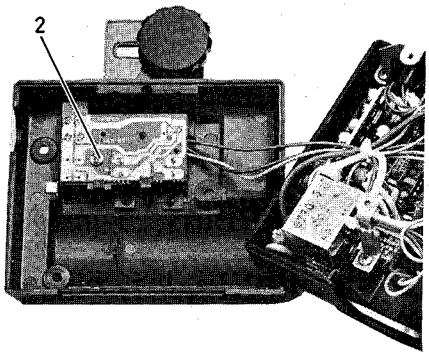



Fig. 25

### 3. E board

1. Remove the bottom case.
2. Remove 3 screws.
3. Remove the board in the direction of the arrows (In the order a, b, c)

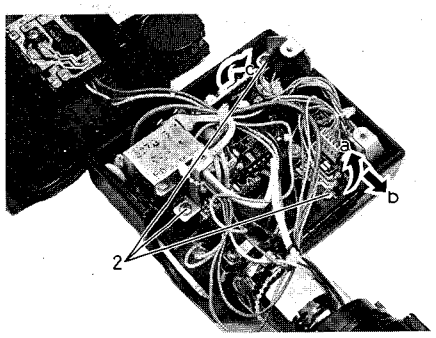



Fig. 26

### 4. CRT

1. Remove the bottom case.
2. Remove 3 screws.
3. Remove 2 screws.
4. Remove the CRT in the direction of the arrow.

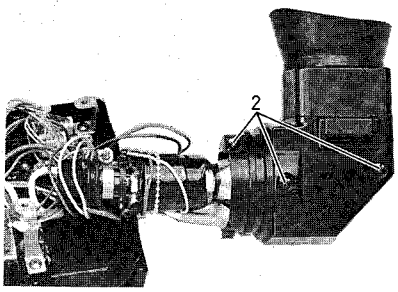



Fig. 27

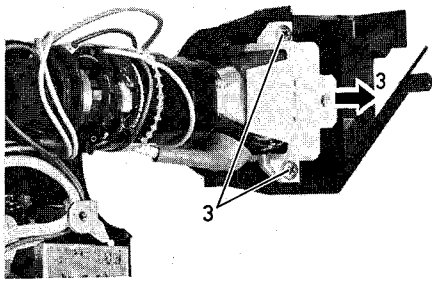



Fig. 28

* Assemble the CRT carefully so that the mirror and the lead are not caught.

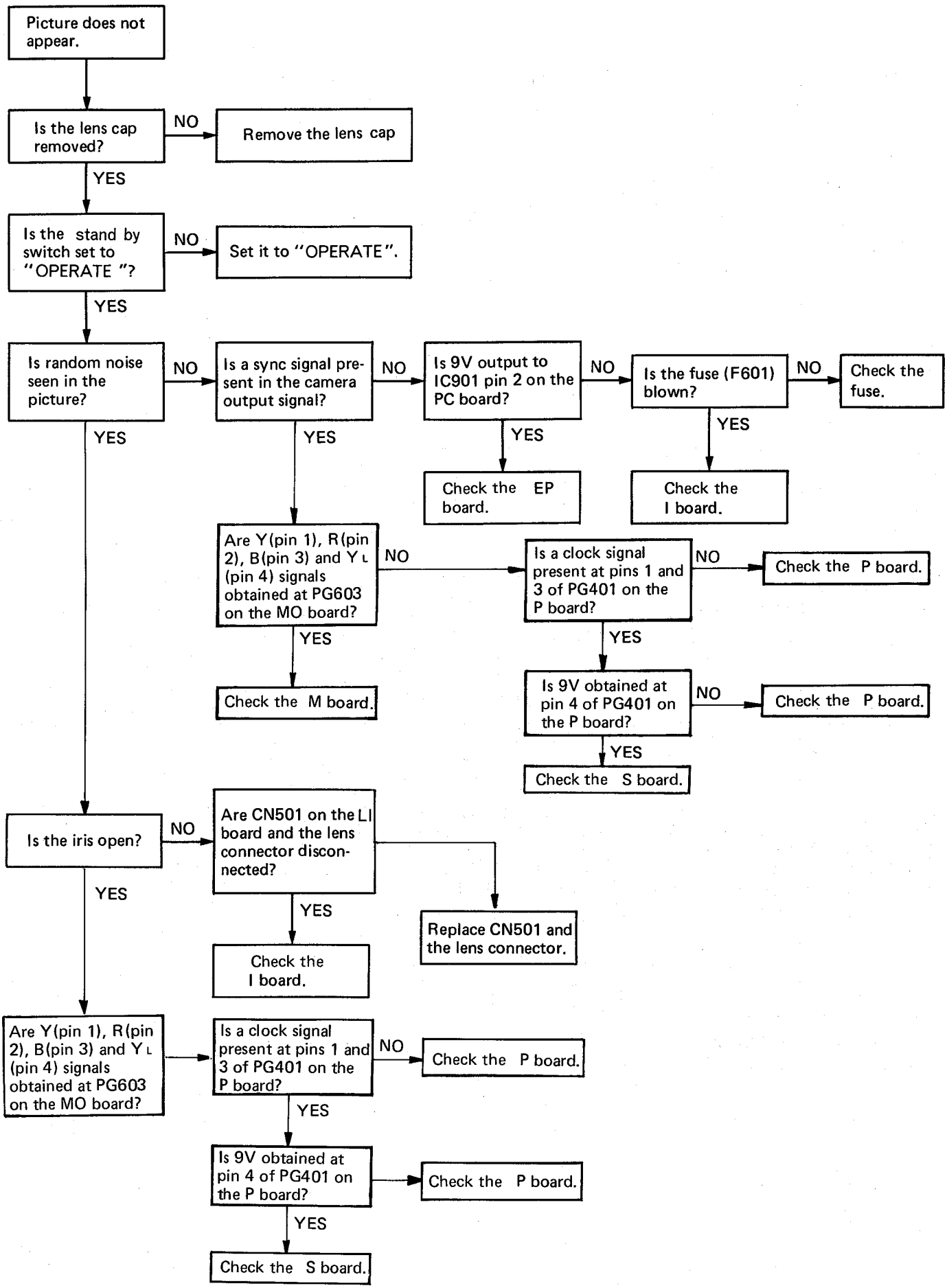
## TROUBLE SHOOTING

* Confirm the following 2 items before checking the camera.

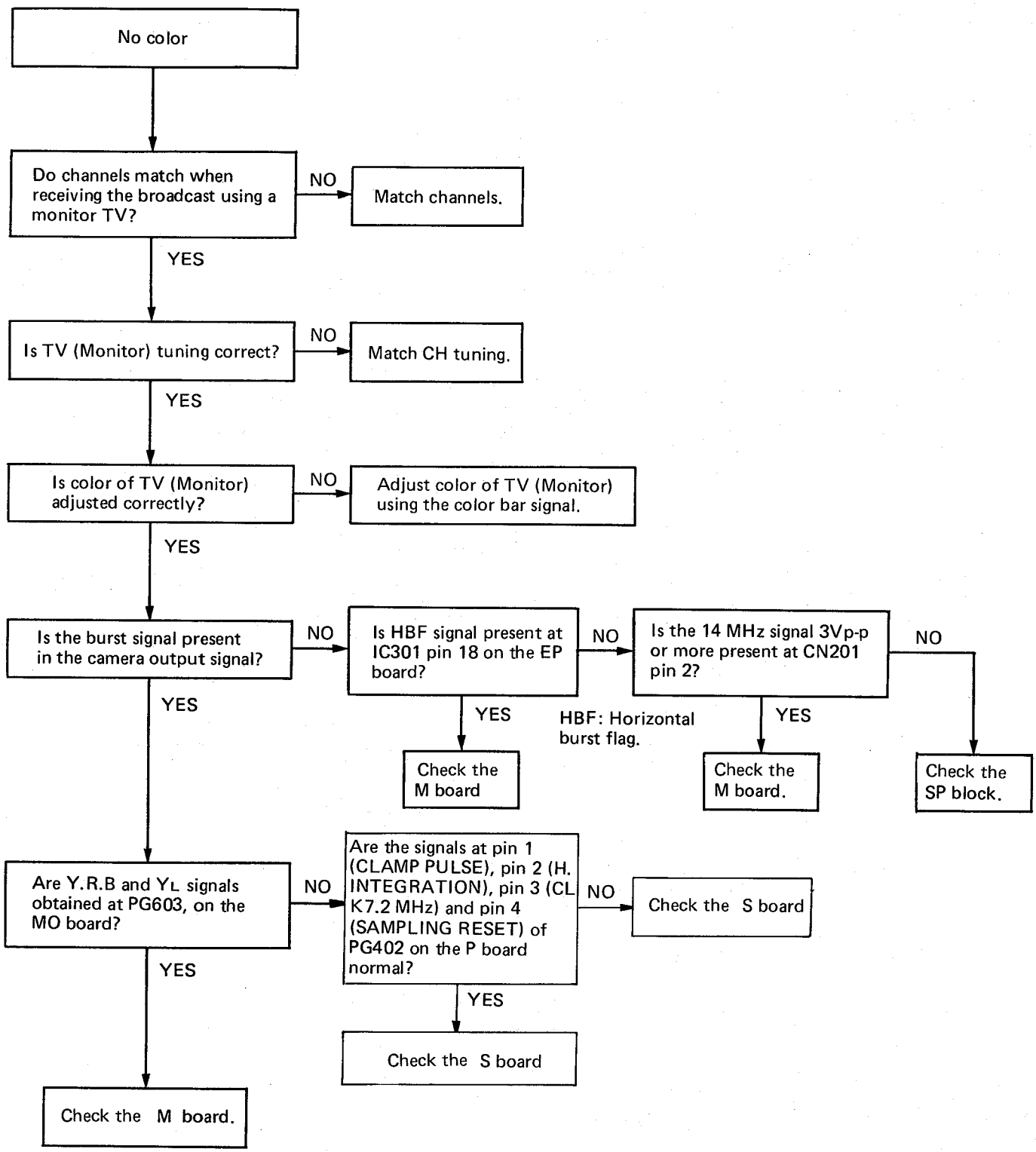
1) Check connections between equipment.
Pay attention to the terminals, type of cable used and operation switch position, etc.

2) Confirm the input power voltage.
Check whether or not the voltage supplied to the camera is normal.

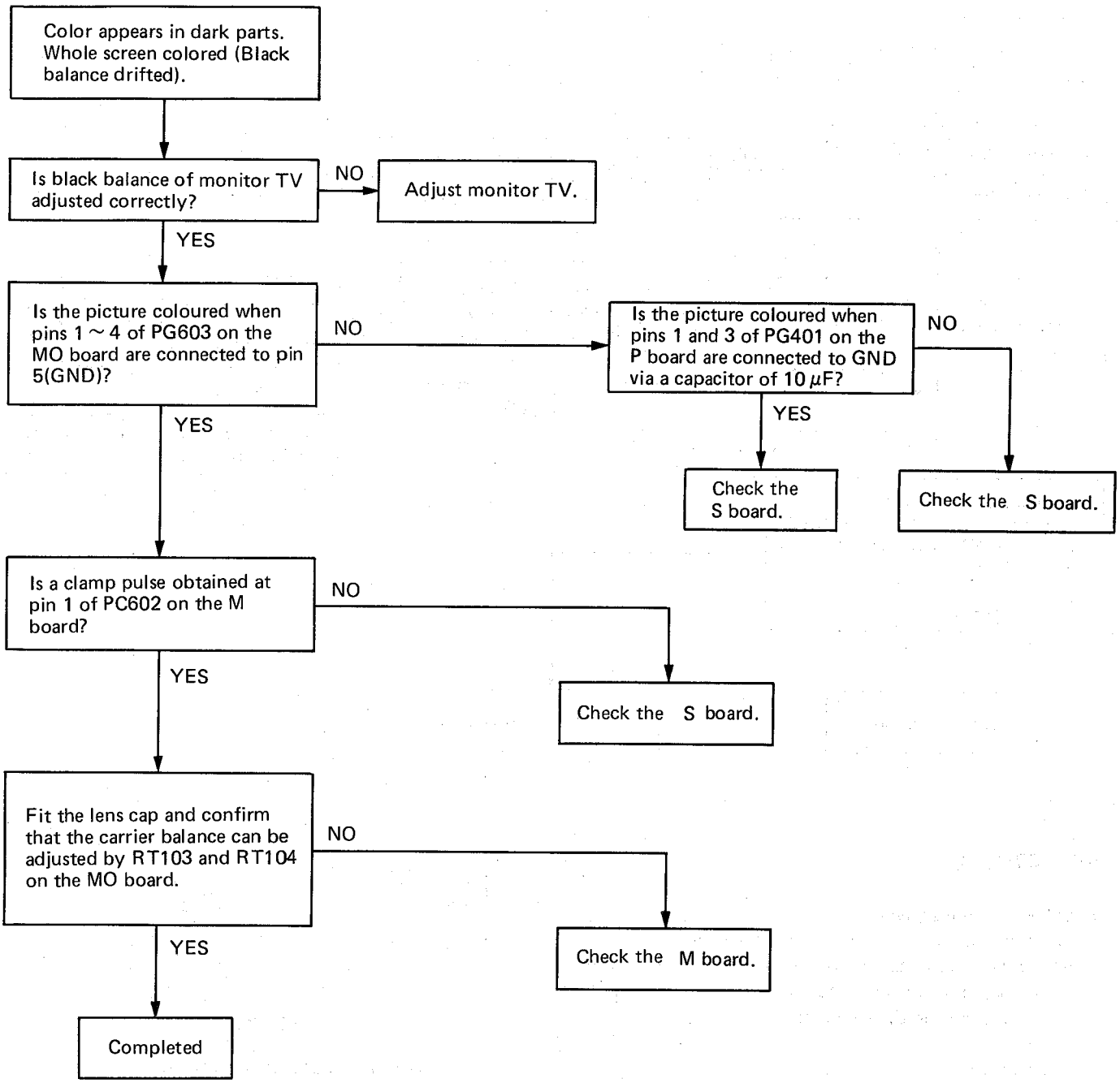
**1. Picture does not appear**


Picture does not appear.
Is the lens cap removed?
NO
Remove the lens cap
YES
Is the stand by switch set to "OPERATE "?
NO
Set it to "OPERATE".
YES
Is random noise seen in the picture?
NO
Is a sync signal present in the camera output signal?
NO
Is 9V output to IC901 pin 2 on the PC board?
NO
Is the fuse (F601) blown?
NO
Check the fuse.
YES
YES
YES
Check the EP board.
Check the I board.
Are Y(pin 1), R(pin 2), B(pin 3) and Y L (pin 4) signals obtained at PG603 on the MO board?
NO
Is a clock signal present at pins 1 and 3 of PG401 on the P board?
NO
Check the P board.
YES
YES
Check the M board.
Is 9V obtained at pin 4 of PG401 on the P board?
NO
Check the P board.
YES
Check the S board.
Is the iris open?
NO
Are CN501 on the LI board and the lens connector disconnected?
YES
YES
Replace CN501 and the lens connector.
Check the I board.
Are Y(pin 1), R(pin 2), B(pin 3) and Y L (pin 4) signals obtained at PG603 on the MO board?
Is a clock signal present at pins 1 and 3 of PG401 on the P board?
NO
Check the P board.
YES
Is 9V obtained at pin 4 of PG401 on the P board?
Check the P board.
YES
Check the S board.

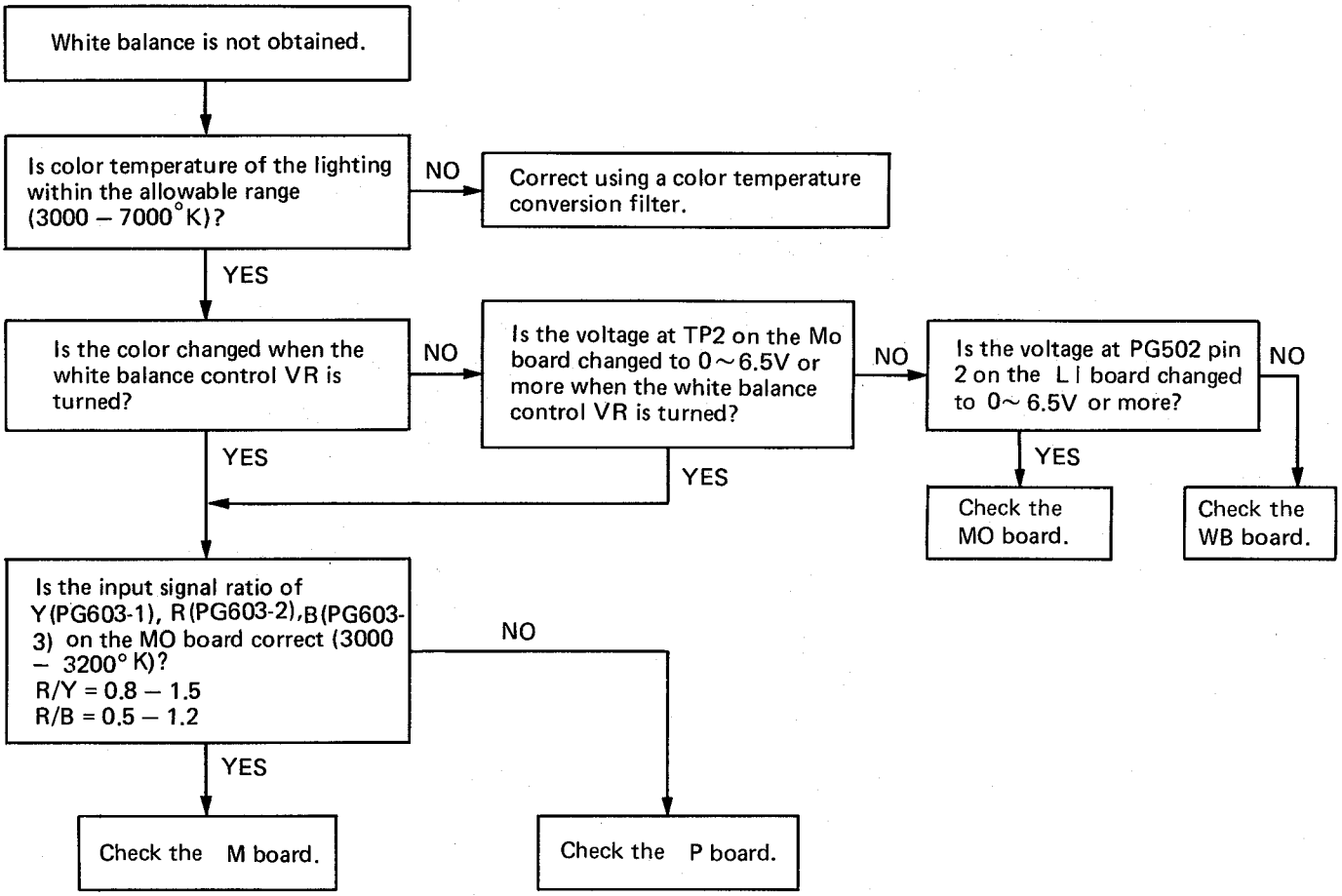
## 2. No color


No color
Do channels match when receiving the broadcast using a monitor TV?
NO
Match channels.
YES
Is TV (Monitor) tuning correct?
NO
Match CH tuning.
YES
Is color of TV (Monitor) adjusted correctly?
NO
Adjust color of TV (Monitor) using the color bar signal.
YES
Is the burst signal present in the camera output signal?
NO
Is HBF signal present at IC301 pin 18 on the EP board?
NO
Is the 14 MHz signal 3Vp-p or more present at CN201 pin 2?
NO
YES
Check the M board
HBF: Horizontal burst flag.
YES
Check the M board.
Check the SP block.
YES
Are Y.R.B and YL signals obtained at PG603, on the MO board?
NO
Are the signals at pin 1 (CLAMP PULSE), pin 2 (H. INTEGRATION), pin 3 (CL K7.2 MHz) and pin 4 (SAMPLING RESET) of PG402 on the P board normal?
NO
Check the S board
YES
Check the S board
YES
Check the M board.

### 3. Color appears in dark parts. Whole screen colored (Black balance drifted)


Color appears in dark parts. Whole screen colored (Black balance drifted).
Is black balance of monitor TV adjusted correctly?
NO
Adjust monitor TV.
YES
Is the picture coloured when pins 1 ~ 4 of PG603 on the MO board are connected to pin 5(GND)?
NO
Is the picture coloured when pins 1 and 3 of PG401 on the P board are connected to GND via a capacitor of 10 μF?
NO
YES
Check the S board.
Check the S board.
YES
Is a clamp pulse obtained at pin 1 of PC602 on the M board?
NO
Check the S board.
YES
Fit the lens cap and confirm that the carrier balance can be adjusted by RT103 and RT104 on the MO board.
NO
Check the M board.
YES
Completed

**4. White balance is not obtained (Not obtained by adjusting while monitoring using EE system)**


White balance is not obtained.
Is color temperature of the lighting within the allowable range (3000 – 7000°K)?
NO
Correct using a color temperature conversion filter.
YES
Is the color changed when the white balance control VR is turned?
NO
Is the voltage at TP2 on the Mo board changed to 0~6.5V or more when the white balance control VR is turned?
NO
Is the voltage at PG502 pin 2 on the L I board changed to 0~ 6.5V or more?
NO
YES
YES
YES
Check the MO board.
Check the WB board.
Is the input signal ratio of Y(PG603-1), R(PG603-2),B(PG603-3) on the MO board correct (3000 – 3200° K)?
R/Y = 0.8 – 1.5
R/B = 0.5 – 1.2
NO
YES
Check the M board.
Check the P board.

## ADJUSTMENT

**1. Before starting adjustment**

Check the following before starting adjustment.

(Note) The circuit boards are checked unassembled, but adjust them by the following procedure to check them when they are replaced.

1. Connection
   Connection between camera and power supply, TV set (monitor), etc.
2. Measuring instruments, tools, etc. used for adjustment.
   Measuring instruments
   Oscilloscope, digital voltmeter
   Tools, etc.
   Adjustment screwdriver, soldering iron, color viewer (3100° K), gray scale chart (11 steps), color bar chart, back-focus adjustment chart, tripod, TV set (monitor).
3. Preparation
   Set the distance between the lens surface of the camera and the color viewer to approx. 2 m.

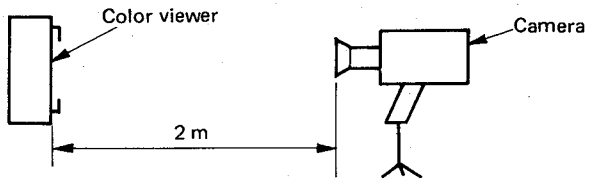



**Fig. 29**

Position of camera operation switches

Standby switch: "STANDBY" during preparation,"OPERATE" during adjustment.

White balance check switch: "OFF" when otherwise not specified.

Remove the viewfinder (called EVF hereafter) and the exclusive microphone when adjusting the camera main body.

Perform adjustment with the time axis of the oscilloscope set to H period (20 μs/div. or 10 μs/div.) when otherwise not specified.

Set the time axis of the oscilloscope to the V period (5 ms/div.) or to the H period as specified in the text.

## 2. Adjustment S board

1. Set the distance between the lens and the chart to 2m and illuminate the chart with a luminance of 500 to 1500 lux.
2. Adjust the zoom to WIDE and set the focus adjustment ring to 2m.
3. Back-focus adjustment

**NOTE:** To adjust the back focus, mount the SP block on the lens block, connect all the connectors and set the standby switch to OPERATE to obtain a picture on the TV (monitor) screen.
Is this case, pay attention so the boards are not contact with the metallic section of the frame.

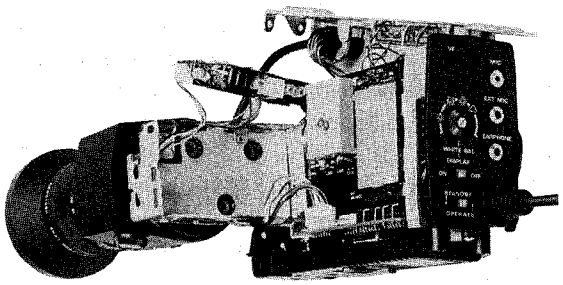
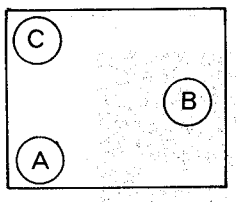


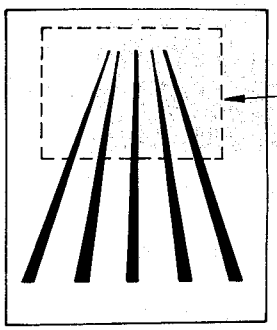
**Fig. 30**

1) Shoot the chart so that the section a is positioned on section A of the monitor.
2) Adjust screw 1 on the S board to focus.
3) Shoot the chart so that section a is positioned on section B of the monitor.
4) Adjust screw 2 on the S board to focus.
5) Shoot the chart so that section a is positioned on section C of the monitor.
6) Adjust screw 3 on the S board to focus.
7) Repeat the procedure of the items 3 – 8.




Monitor

**Fig. 31**




Back-focus adjustment chart

**Fig. 32**

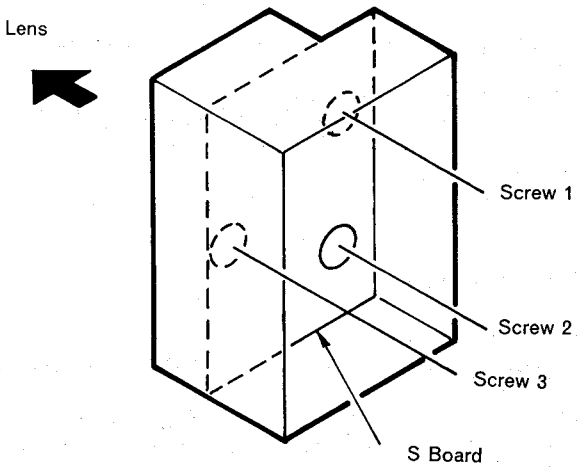



**Fig. 33**

4. Mount the lens cap on the lens block.
5. Connect the digital voltmeter to TP602 on the MO board.
6. Adjust the white balance VR at the back of the camera so that the reading of the digital voltmeter is 1.5 ±0.05V.
7. Connect the oscilloscope to TP605 (camera output signal) on the MO board. (Time axis: H period)
8. Offset adjustment
   Insert the colour bar chart into the colour viewer and bring it into focus.
9. Adjust the zoom so that the colour bar chart fills the TV (monitor) screen.
10. Short-circuit TP3 and TP4 on the P board in the SP block.
11. Carrier balance adjustment
    Adjust RT401 and RT406 on the P board to remove the vertical stripes with a 2.4 MHz interval seen on the TV (monitor) screen.
12. Release short-circuiting of TP3 and TP4 on the P board.
13. Insert the gray scale chart into the color viewer and adjust the focus.
14. Adjust the zoom so that the gray scale chart fills the TV (monitor) screen.
15. White balance adjustment
    Alternately adjust RT404 and RT405 of the SP block so that the leakage of the carrier is minimum for each step of the gray scale.

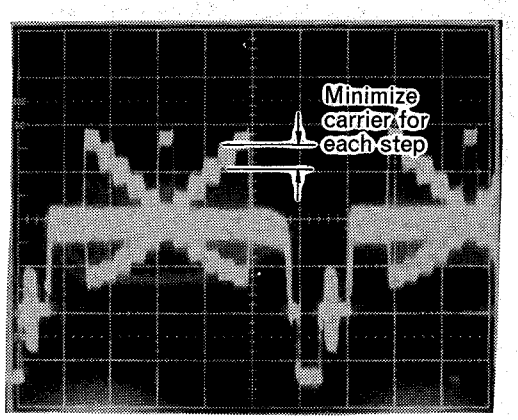



**Fig. 34**

16. Shoot a dark object with a luminance of approx. 500 lux.
17. Fixed 2.4 MHz signal adjustment
    Adjust RT402 and RT403 to minimize 2.4 MHz signal seen as the vertical stripes on the TV (monitor) screen.
18. Shoot the color bar chart, etc. to check that the picture is normal.

### 3. Adjustment P board

1. Mount the lens cap on the lens block.
2. Connect the digital voltmeter to TP602 on the MO board.
3. Adjust the white balance VR at the back of the camera so that the reading of the digital voltmeter is 1.5 ±0.05V.
4. Connect the oscilloscope to TP605 (camera output signal) on the MO board. (Time axis: H period)
5. Offset adjustment
   Insert the colour bar chart into the colour viewer and bring it into focus.
6. Adjust the zoom so that the colour bar chart fills the TV (monitor) screen.
7. Short-circuit TP3 and TP4 on the P board in the SP block.
8. Carrier balance adjustment
   Adjust RT401 and RT406 on the P board to remove the vertical stripes with a 2.4 MHz interval seen on the TV (monitor) screen.
9. Release short-circuiting of TP3 and TP4 on the P board.
10. Insert the gray scale chart into the color viewer and adjust the focus.
11. Adjust the zoom so that the gray scale chart fills the TV (monitor) screen.
12. White balance adjustment
    Alternately adjust RT404 and RT405 of the SP block so that the leakage of the carrier is minimum for each step of the gray scale.

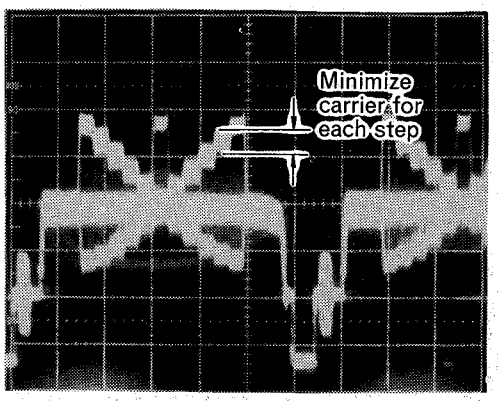



Fig. 35

13. Shoot a dark object with a luminance of approx. 500 lux.
14. Fixed 2.4 MHz signal adjustment
    Adjust RT402 and RT403 to minimize 2.4 MHz signal seen as the vertical stripes on the TV (monitor) screen.
15. Shoot the color bar chart, etc. to check that the picture is normal.

### 4. Adjustment M board

1. Mount the lens cap on the lens block.
2. Connect the digital voltmeter to TP602 on the MO board.
3. Adjust the white balance VR at the back of the camera to set the reading of the digital voltmeter to 1.5±0.05V.
4. Connect the oscilloscope to TP605 (camera output signal) on the MO board. (Time axis : H period)
5. Carrier balance adjustment
   1) Connect the oscilloscope to TP604 on the MO board via a resistor (10 kΩ ). Adjust RT101 on the M board to obtain the setup of 300mV ±100 mV.
   2) Alternately adjust RT103 and RT104 on the M board while observing the oscilloscope so that the leakage of the carrier (3.58 MHz) of the camera output signal is minimum.
6. Connect the oscilloscope to TP604 (YL SET UP) on the MO board via a resistor (10 k Ω).
7. YL set up adjustment
   Adjust RT101 on the M board to obtain the setup of 40mV~0V.

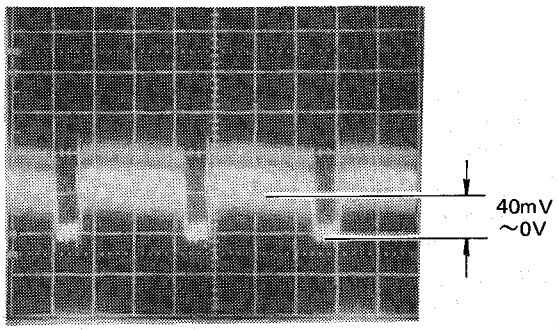



Fig. 36

8. Set-up adjustment
   Adjust RT102 on the M board to set the set-up amount of the camera output signal to 20mV ± 20mV.

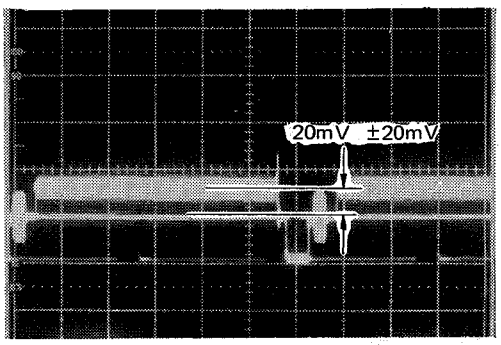



Fig. 37

9. White balance display adjustment
   1) Connect pins 1 (Y), 2 (R), 3 (B) and 4 (YL ) on the MO board to pin 5 (GND).
   2) Set the WHITE BAL DISPLAY switch to ON.
   3) Adjust RT105 so that the white bar is positioned at the utmost top on the screen of the EVF.

10. Shoot the color bar, etc. to check that the picture is normal.

## 5. Adjustment LI board

1. Mount the lens cap on the lens block.
2. Connect the digital voltmeter to TP602 on the MO board.
3. Adjust the white balance VR at the back of the camera to set the reading of the digital voltmeter to 1.5±0.05V.
4. Connect the oscilloscope to TP605(camera output signal) on the MO board. (Time axis: H period)
5. Insert the gray scale into the color viewer and adjust the focus.
6. Adjust the zoom so that the gray scale chart fills the TV (monitor) screen.
7. Iris adjustment
   Adjust RT501 on the LI board while observing the camera output signal using an oscilloscope so that the camera output signal is 0.7Vp-p±0.04Vp-p.

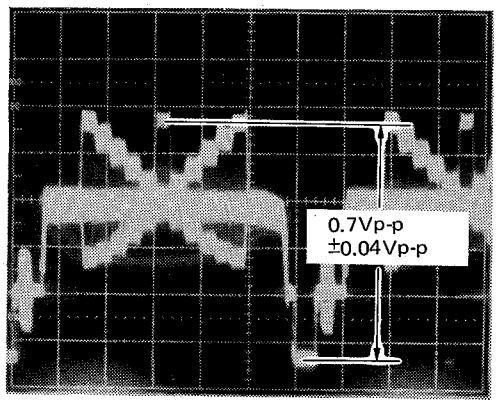



**Fig. 40**

8. Mount the lens cap on the lens block.
9. L indicator adjustment
   1) Measure the potential at IC509 pin 1 on the LI board.
   2) Adjust RT502 on the LI board so that the potential of IC509 pin 4 on the LI board is 0.6V higher than that of pin 1.
10. Shoot the color bar, etc. to check that the picture is normal.

## 6. Adjustment EP board

- You may shoot the chart or not.

1. Connect the counter to TP1.
2. Adjust CT301 on the EP board to set the subcarrier to 4.433619 MHz± 50 Hz.
3. Connect the digital voltmeter to TP2.
4. Adjust CT302 on the EP board to set the H/V reference frequency voltage to 3±0.05V.
5. Connect the oscilloscope to TP605 on the MO board.
6. Adjust RT301 on the EP board to set the burst signal to 280mV ±35mV.
7. Shoot the colour bar chart, etc. to confirm a normal picture is obtained.

## 7. Adjustment/measurement locations on each board

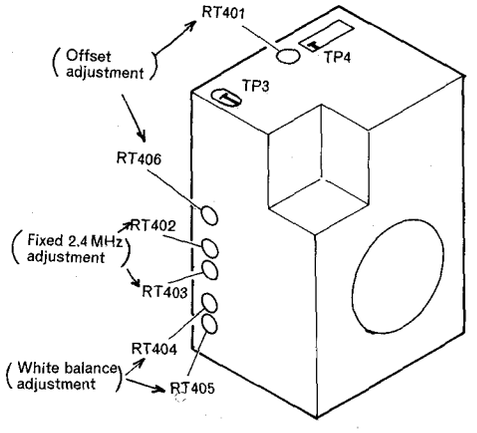



**Fig. 41 SP block**

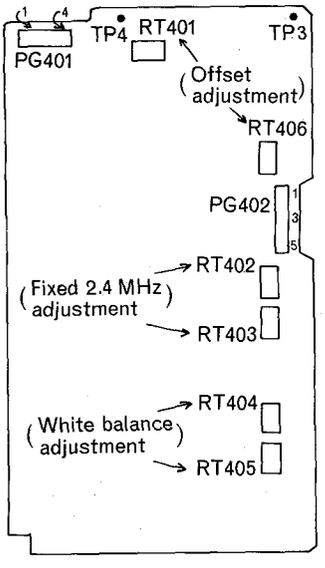



**Fig. 42 P board (parts side)**

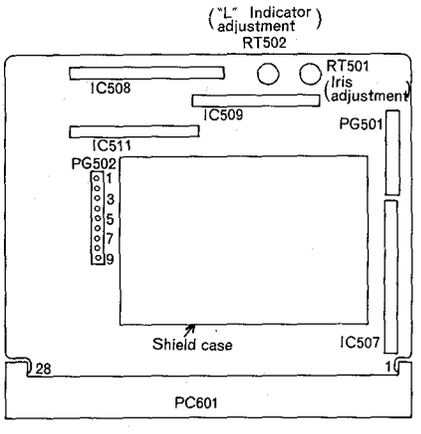



**Fig. 43 LI board (parts side)**

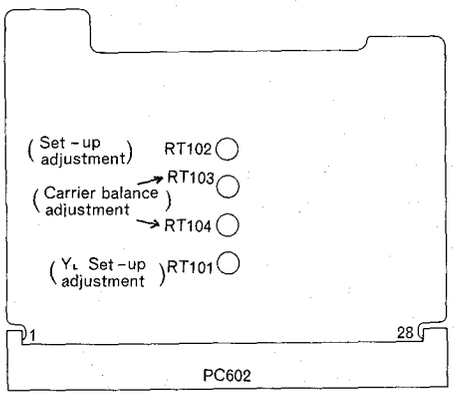



**Fig. 44 M board (parts side)**

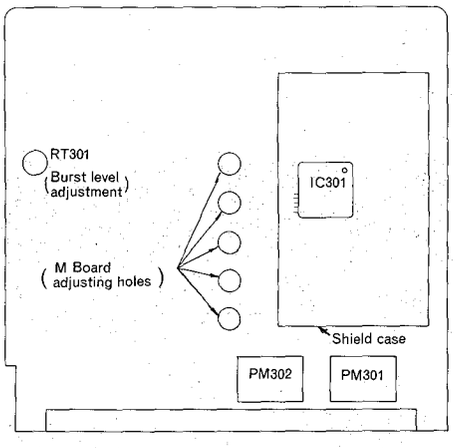
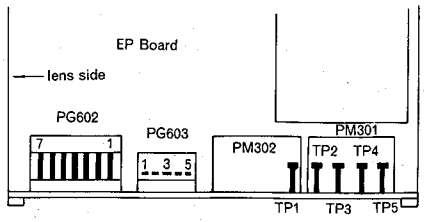



**Fig. 45 EP board (parts side)**




PG603
1 pin : Y signal
2 pin : R signal
3 pin : B signal
4 pin : $Y_L$ signal
5 pin : GND

Test point
TP1 : V. DRIVE pulse
TP2 : WHT. BALANCE CONT. signal
TP3 : CAMERA H. DRIVE pulse
TP4 : YL SETUP
TP5 : VIDEO OUT signal

**Fig. 46 MO board (Viewed from EP board)**

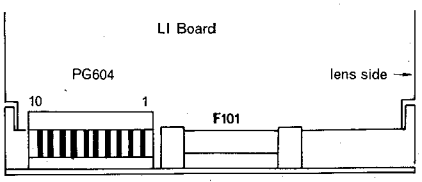



**Fig. 47 MO board (Viewed from LI board)**

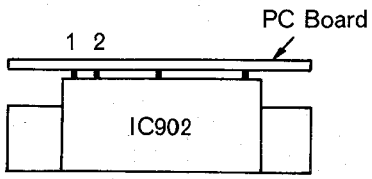
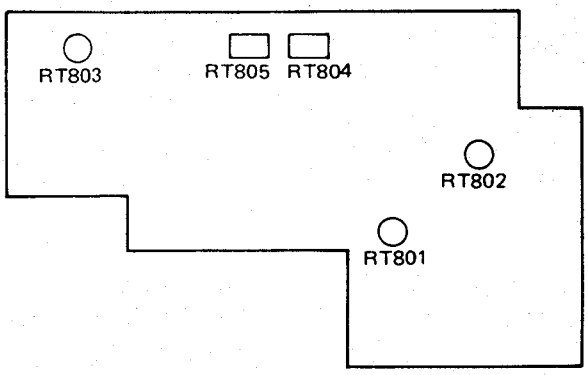



**Fig. 48 PC board**

## 8. Electronic viewfinder (EVF) adjustment




Perform adjustment while looking into the viewfinder.

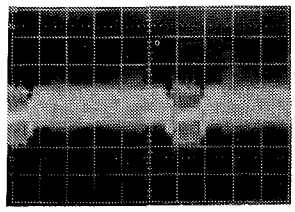
1. Vertical size adjustment
   Adjust vertical size using RT802 (V. SIZE)
2. Contrast adjustment
   Adjust light and shade using RT804 (CONTRAST) so that the picture is easy to see.
3. Horizontal synchronization adjustment
   Adjust horizontal synchronization using RT801 (H. SYNC).
4. Brightness adjustment
   Adjust bright and dark of the picture using RT805 (BRIGHT) so that the picture is easy to see.
5. Focus adjustment
   Adjust RT803 (FOCUS) so that the picture is clear and sharp.
6. Centering adjustment
   Match the raster position using the centering magnets provided with the deflection yoke.

## 9. Service Jigs

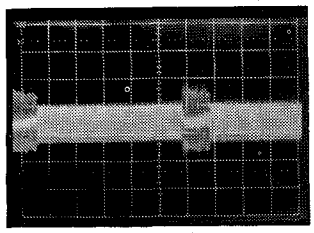
Use the following jigs to extend the LI, M and E boards when servicing the VK-C2000E.

| | |
|---|---|
| LI board extension jig | Stock No. 7099141 |
| M board extension jig | Stock No. 7099142 |
| E board extension jig | Stock No. 7099143 |

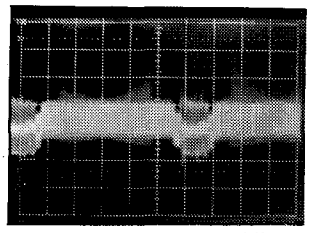
## 9. Waveforms



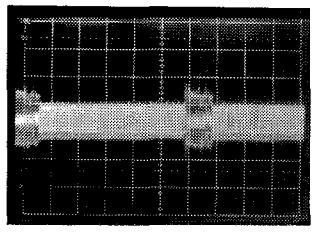
PG401-1 .1V/div., 10μsec/div.
When the grey scale chart is shot



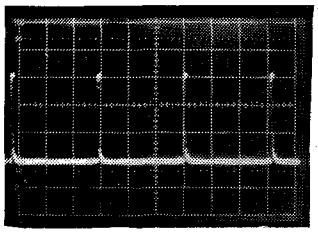
PG401-1 .1V/div., 10μsec/div.
When the lens cap is in place to shut off light



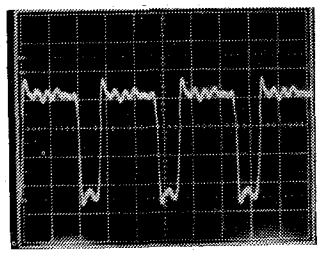
PG401-3 .1V/div., 10μsec/div.
When the grey scale chart is shot



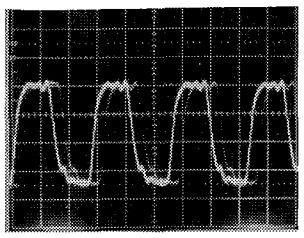
PG401-3 .1V/div., 10μsec/div.
When the lens cap is in place to shut off the light



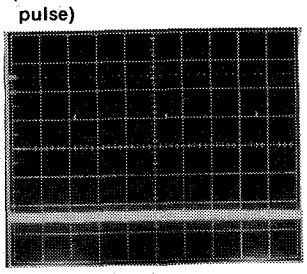
PG402-1 2V/div., 20μsec/div.
(CLAMP PULSE)



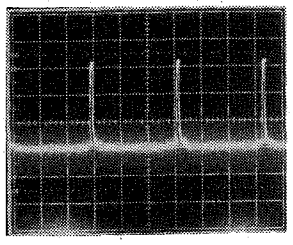
PG402-2 2V/div., 50μsec/div.
(H. INTEGRATION PULSE)



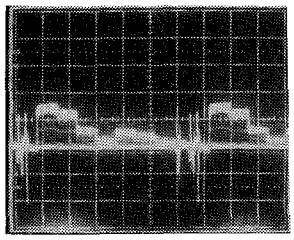
PG402-3 2V/div., 50μsec/div.
(CLK 7.2 MHz : 7.2 MHz clock pulse)



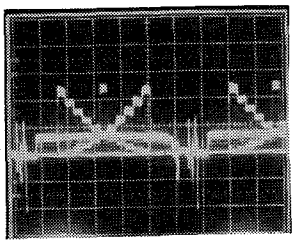
PG402-4 2V/div., 20μsec/div.
(SAMPLING RESET PULSE)



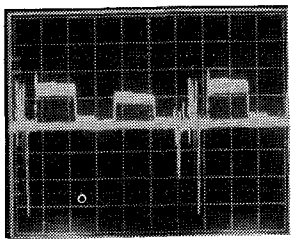
PC602-1 2V/div., 20μsec/div.
(CLAMP PULSE)



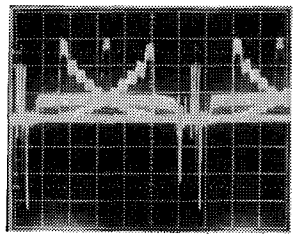
PG603-1 .2V/div., 10μsec/div.
(Y signal [COLORBAR])



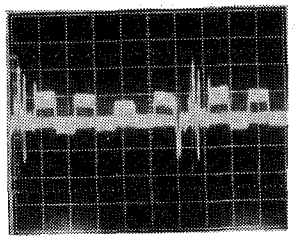
PG603-1 .2V/div., 10μsec/div.
(Y signal [GRAY SCALE])



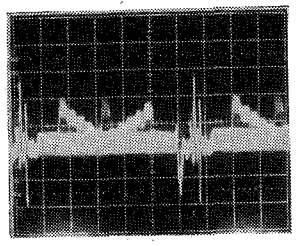
PG603-2 .2V/div., 10μsec/div.
(R signal [COLORBAR])



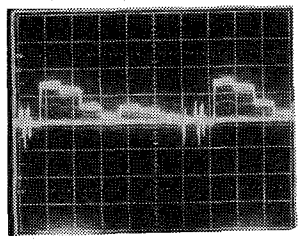
PG603-2 .2V/div., 10μsec/div.
(R signal [GRAY SCALE])



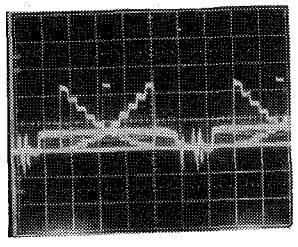
PG603-3 .2V/div., 10μsec/div.
(B signal [COLORBAR])



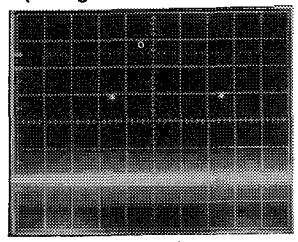
PG603-3 .2V/div., 10μsec/div.
(B signal [GRY SCALE])



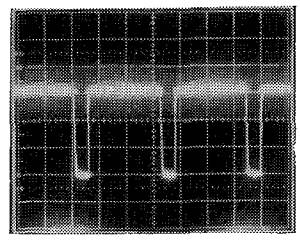
PG603-4 .2V/div., 10μsec/div.
(YL signal [COLORBAR])



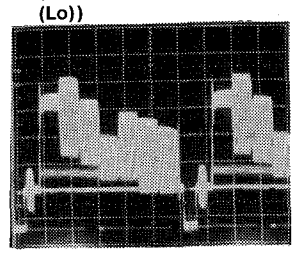
PG603-4 .2V/div., 10μsec/div.
(YL signal [GRAY SCALE])



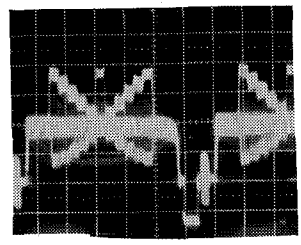
TP1 2V/div., 5msec/div.
(V. DRIVE PULSE)



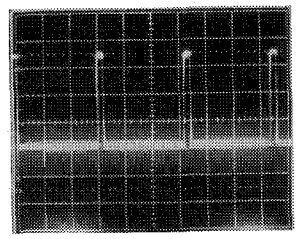
TP3 2V/div., 20μsec/div.
(CAMERA H. DRIVE PULSE (Lo))



TP5 .2V/div., 10μsec/div.
(VIDEO OUT [COLORBAR])



TP5 .2V/div., 10μsec/div.
(VIDEO OUT [GRAY SCALE])



IC301-18 .2V/div., 20μsec/div.
(H. BURST FLAG PULSE)

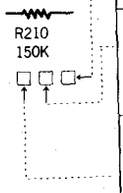
– MEMO –

# DIAGRAMS

## WHEN USING THIS SERVICE REFERENCE MATERIAL

### How to read abbreviations

**<Resistors>**

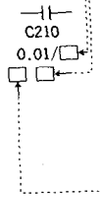



| | |
|---|---|
| Unit indication | No indication ..... Ω<br>K ..... kΩ |
| Tolerance indication | No indication ..... ±5%<br>K ..... ±10%<br>M ..... ±20% |
| Power capacitance indication | No indication ..... 1/4W<br>(All those other than 1/4W are indicated in the circuit diagram. W is omitted.) |
| Type indication | No indication ..... Carbon film fixed (carbon)<br>RC ..... Carbon solid (solid)<br>RW ..... Power type on fixed<br>RS ..... Oxide metal film fixed<br>RN ..... Metal film fixed |

Example

R210
150K ..... 150kΩ, carbon solid
RE1/2K ..... 1/2W, ±10%

**<Capacitors>**




| | |
|---|---|
| Unit indication | No indication ..... μF<br>P ..... PF |
| Withstand voltage indication | No indication ..... 50 WV<br>(Those other than 50 WV and electrolytic capacitor are indicated in the diagram. WV omitted.) |
| Tolerance indication | No indication ..... ±10%<br>J ..... ±5%<br>M ..... ±20%<br>C ..... ±0.25 PF<br>Z ..... +80 −20%<br>(Tolerance is not indicated for electrolytic capacitors (excluding tantalum capacitors, high-stability electrolytic capacitors)). |
| Type indication | No indication ..... Ceramic capacitor<br>Ordinary electrolytic capacitor (Refer to the circuit symbol to discriminate between ceramic capacitor)<br>ML ..... Mylar (polyester film)<br>STY ..... Styrol<br>TA ..... Tantalum<br>KU.. High-stability electrolytic capacitor<br>MP ..... Metalized paper |

Example

C210
0.1/25 MYL J ..... Mylar, 0.1 μF, 25 WV, ±5%

Note: 1. Voltages are besed on the values during normal operation, during no signal, (–) side of the power supply.

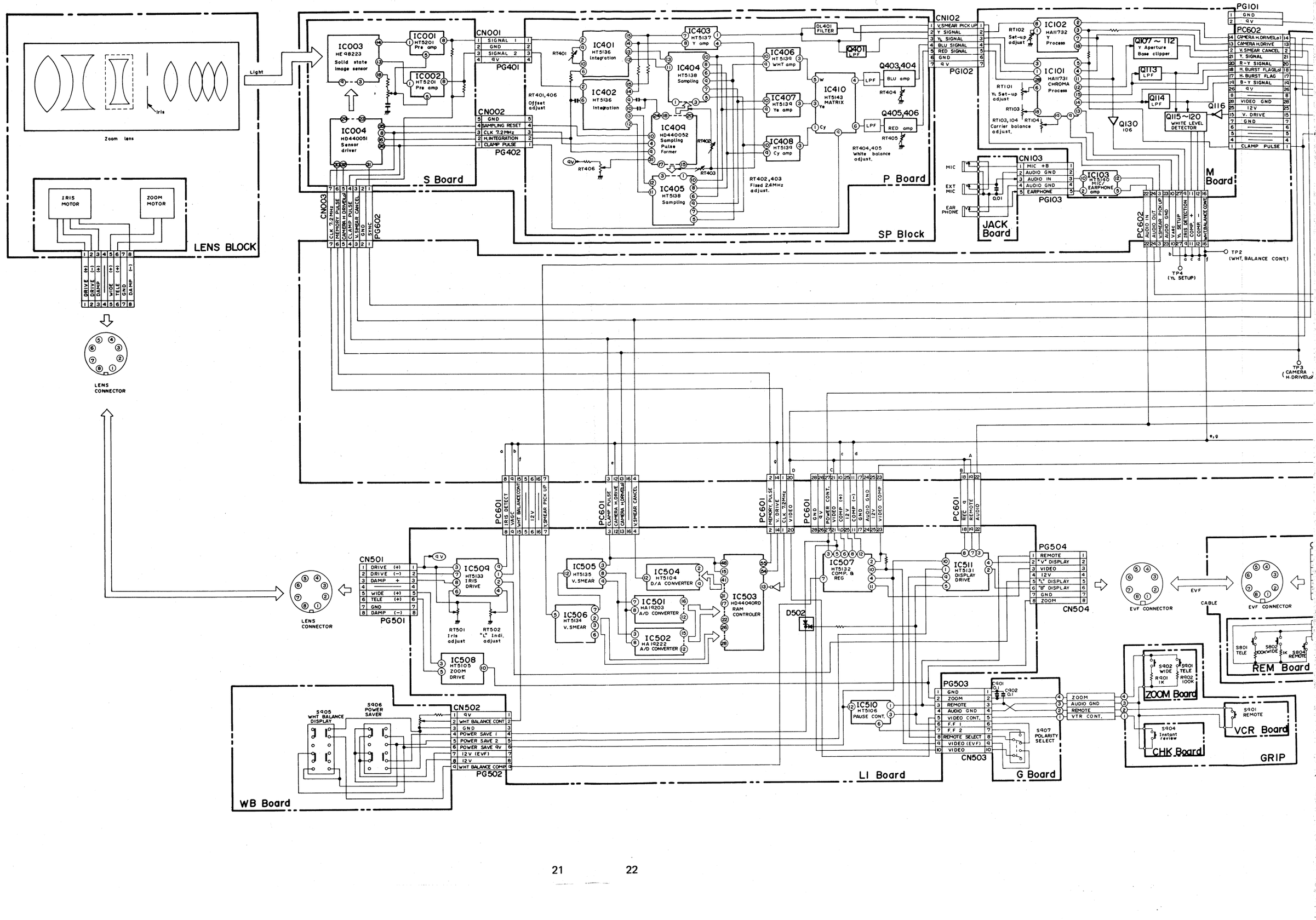
2. Unit, withstand voltage (power capacitance), tolerance and type of the resistors (excluding variable resistors) and capacitors are indicated with abbreviation in the circuit diagram. It is requested to replace the parts correctly matching the abbreviation in the diagram with the list showing how to read the abbreviation.

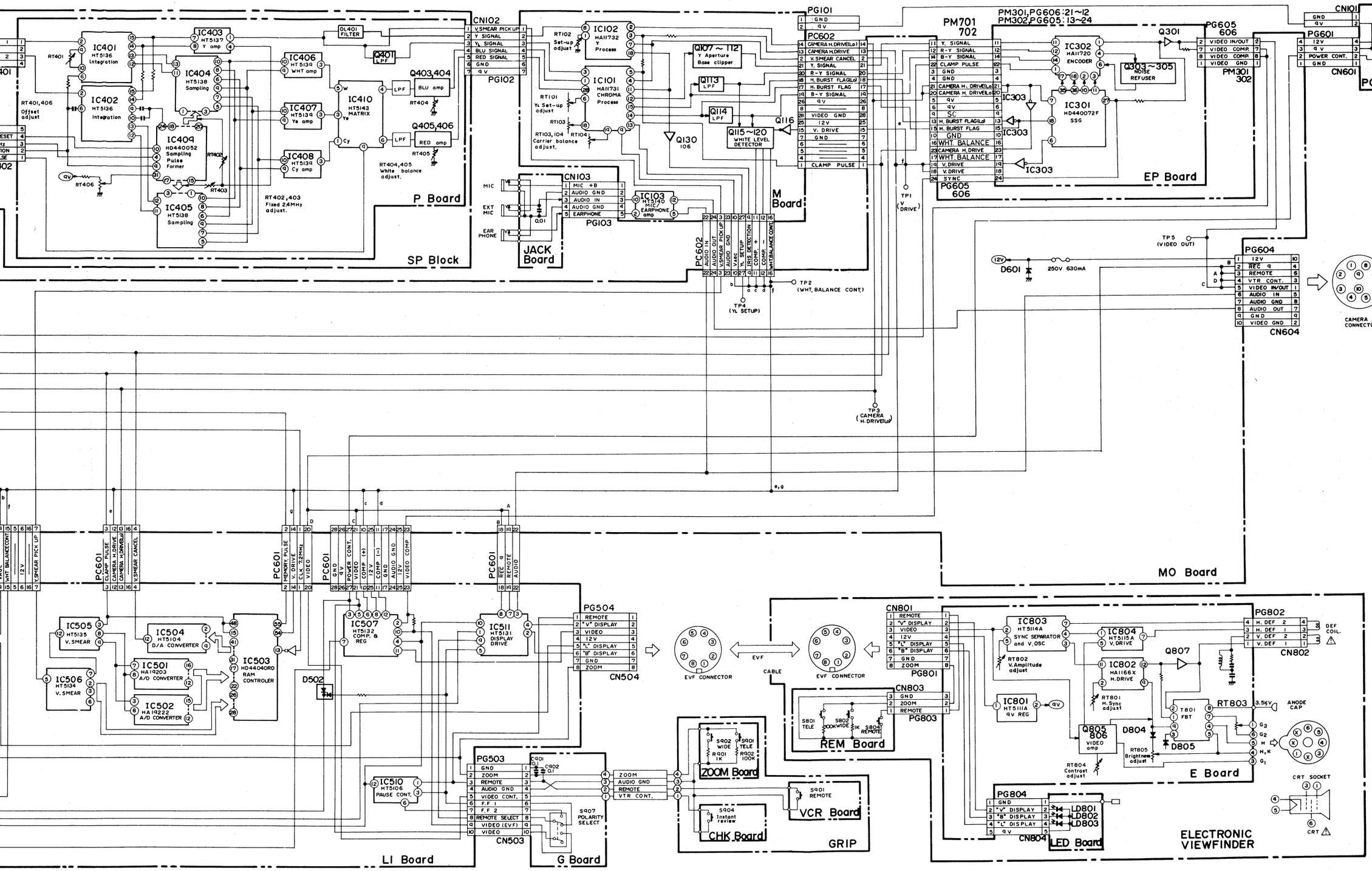
### Cautions when using MOS ICs

1. MOS ICs are inserted into black sponge for shipment.

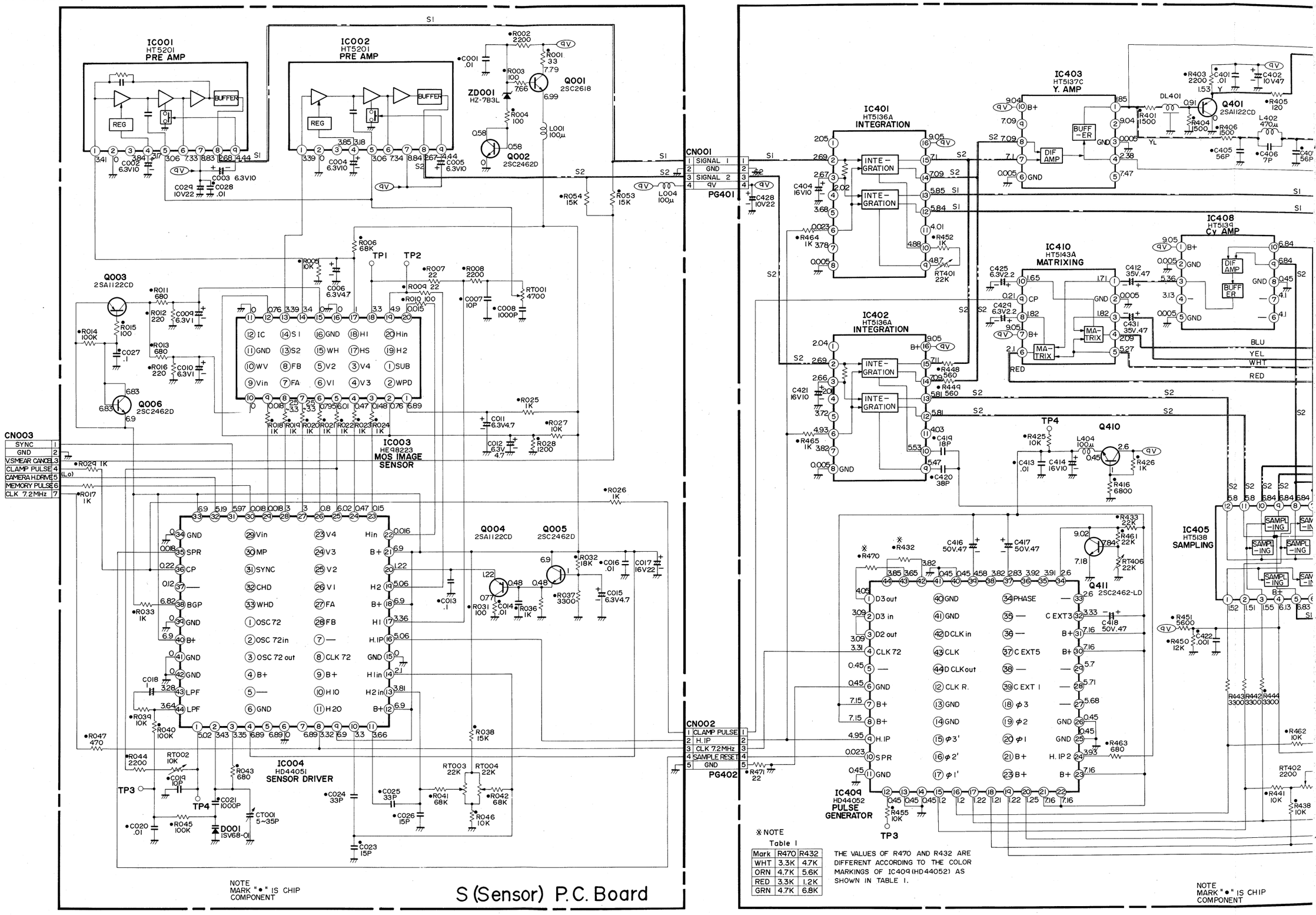
   This sponge is conductive and is used to short-circuit between leads to prevent damage. As a result, do not pull out ICs from this black sponge during the storage of ICs. Avoid pulling out ICs from the sponge and putting them on the plastic which is likely to be charged or inserting them in foamed styrol.
2. High voltages may be applied to ICs due to leakage from the soldering iron during soldering, so be sure to ground the tip of the soldering iron or use a low voltage soldering iron.
3. The human body and clothes made of chemical fibre, nylon gloves, etc., may be charged to several thousand volts due to friction, so be sure to ground body during work.
4. Be sure to ground measuring instruments such as the oscilloscope, VTVM, etc., which are used for repairs, before starting work.

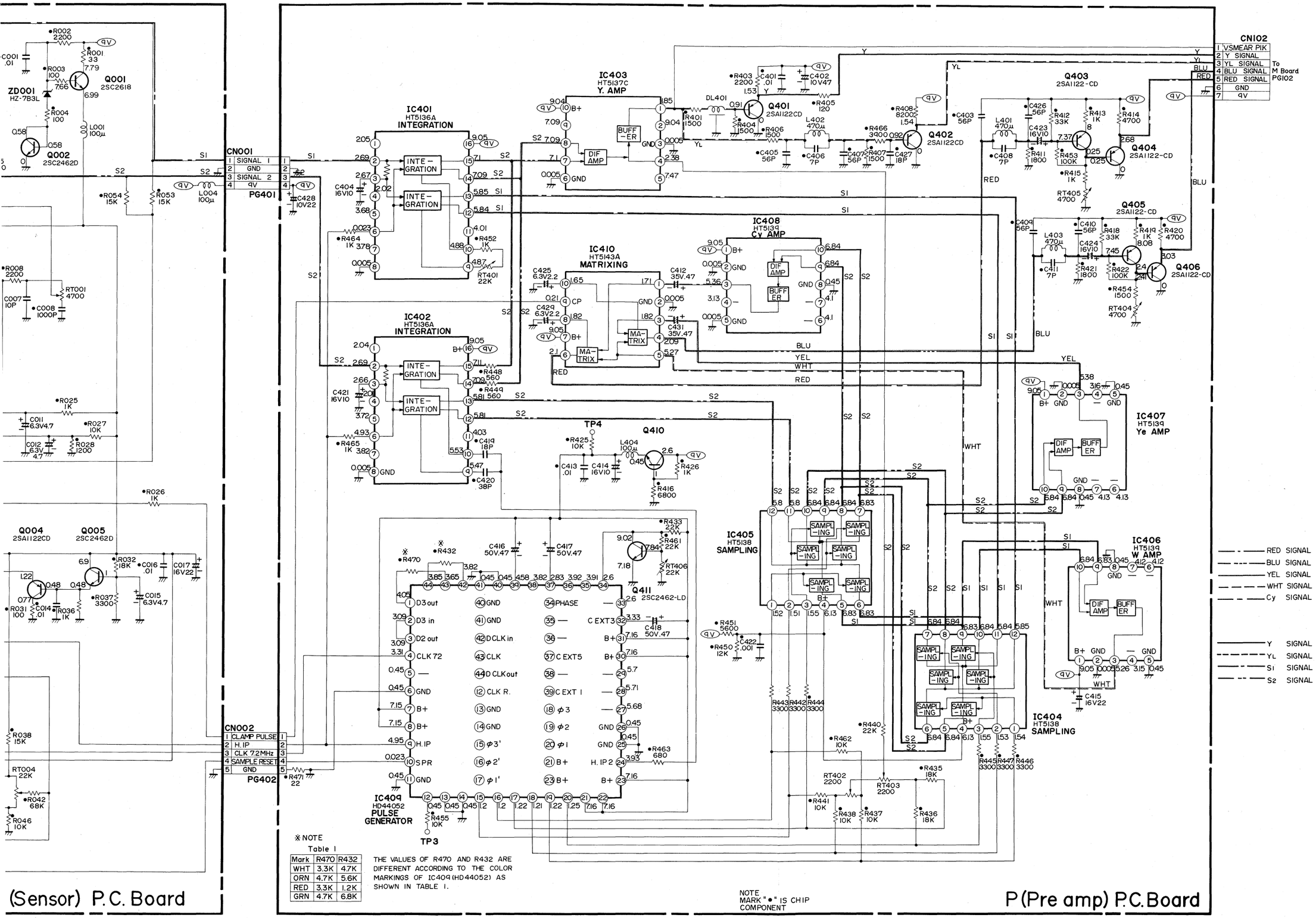
# BLOCK DIAGRAM



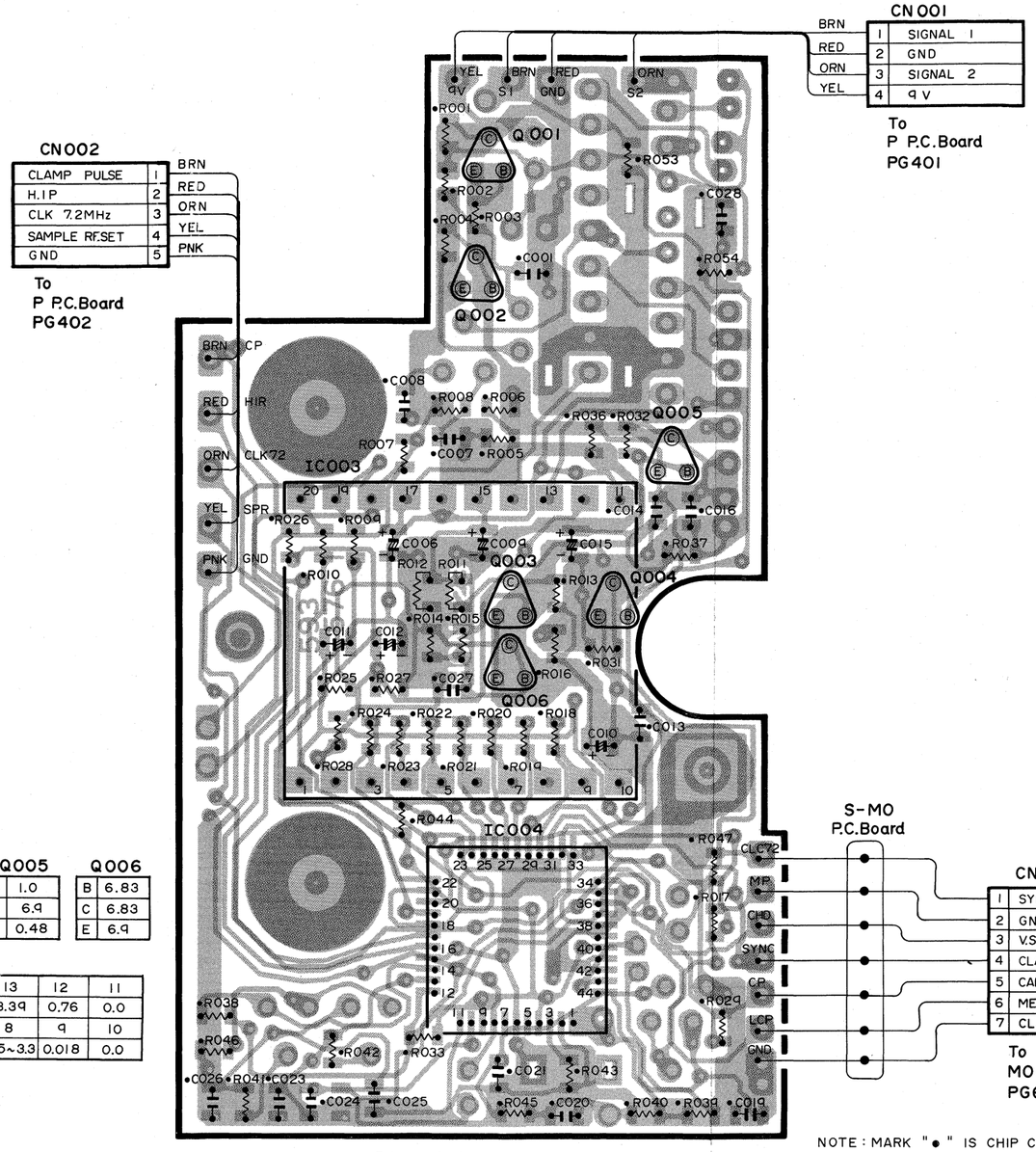

P Board
SP Block
JACK Board
M Board
EP Board
PC Board
MO Board
LI Board
G Board
GRIP
ZOOM Board
CHK Board
VCR Board
REM Board
LED Board
E Board
ELECTRONIC VIEWFINDER
CAMERA CONNECTOR
EVF
CABLE
EVF CONNECTOR
IC401 HT5136 Integration
IC402 HT5136 Integration
IC403 HT5137 Y amp
IC404 HT5138 Sampling
IC405 HT5138 Sampling
IC406 HT5139 WHT amp
IC407 HT5139 Ye amp
IC408 HT5139 Cy amp
IC409 HD440052 Sampling Pulse Former
IC410 HT5143 MATRIX
IC101 HA11731 CHROMA Process
IC102 HA11732 Y Process
IC103 HT5140 MIC/EARPHONE amp
IC301 HD4400072F SSG
IC302 HA11720 ENCODER
IC303
IC501 HA11R203 A/D CONVERTER
IC502 HA11R222 A/D CONVERTER
IC503 HD44040RD RAM CONTROLER
IC504 HT5104 D/A CONVERTER
IC505 HT5135 V. SMEAR
IC506 HT5134 V. SMEAR
IC507 HT5132 COMP. & REG
IC510 HT5106 PAUSE CONT.
IC511 HT5131 DISPLAY DRIVE
IC801 HT5111A 9V REG
IC802 HA1166X H. DRIVE
IC803 HT5114A SYNC SEPARATOR and V. OSC
IC804 HT5115A V. DRIVE
IC901 HA5111A 9V REG.
Q107 ~ 112 Y Aperture Base clipper
Q113 LPF
Q114 LPF
Q115 ~ 120 WHITE LEVEL DETECTOR
Q116
Q130 106
Q301
Q303 ~ 305 NOISE REFUSER
Q401 LPF
Q403,404 BLU amp
Q405,406 RED amp
Q807
Q805 806 VIDEO amp
D501 FILTER
D502
D601 250V 630mA
D804
D805
RT401 RT401,406 Offset adjust
RT402,403 Fixed 24MHz adjust.
RT404 RT404,405 White balance adjust.
RT101 Y1 Set-up adjust
RT102 Set-up adjust
RT103,104 Carrier balance adjust.
RT403 RT402
RT406
RT801 H.Sync adjust
RT802 V.Amplitude adjust
RT803
RT804 Contrast adjust
RT805 Brightness adjust
PM701 702
PM301 302
PG605 606
PG601
PG602
PG603
PG604
PG801
PG802
PG803
PG804
CN101
CN102
CN103
CN503
CN504
CN601
CN602
CN604
CN801
CN802
CN803
CN804
PG101
PG102
PG103
PG501
PG502
PG503
PG504
PC601
TP1 (V DRIVE)
TP2 (WHT. BALANCE CONT.)
TP3 (CAMERA H.DRIVE(Lo))
TP4 (Y1 SETUP)
TP5 (VIDEO OUT)
S801 TELE
S802 WIDE
S803 REMOTE
S901 REMOTE
S902 WIDE
S901 TELE
S907 POLARITY SELECT
S904 Instant review
LD801
LD802
LD803
DEF COIL
CRT SOCKET
CRT
ANODE CAP
3.5KV
PM301,PG606:21~12
PM302,PG605:13~24

## SENSOR/PRE AMP CIRCUIT DIAGRAM




CN102
1 V.SMEAR PIK
2 Y SIGNAL
3 YL SIGNAL
4 BLU SIGNAL
5 RED SIGNAL
6 GND
7 9V
To M Board PG102
CN001
1 SIGNAL 1
2 GND
3 SIGNAL 2
4 9V
PG401
CN002
1 CLAMP PULSE
2 H. IP
3 CLK 7.2MHz
4 SAMPLE RESET
5 GND
PG402
IC401 HT5136A INTEGRATION
IC402 HT5136A INTEGRATION
IC403 HT5137C Y. AMP
IC404 HT5138 SAMPLING
IC405 HT5138 SAMPLING
IC406 HT5139 W AMP
IC407 HT5139 Ye AMP
IC408 HT5139 Cy AMP
IC409 HD44052 PULSE GENERATOR
IC410 HT5143A MATRIXING
Q001 2SC2618
Q002 2SC2462D
Q004 2SA1122CD
Q005 2SC2462D
Q401 2SA1122CD
Q402 2SA1122CD
Q403 2SA1122-CD
Q404 2SA1122-CD
Q405 2SA1122-CD
Q406 2SA1122-CD
Q410
Q411 2SC2462-LD
TP3
TP4
RED SIGNAL
BLU SIGNAL
YEL SIGNAL
WHT SIGNAL
Cy SIGNAL
Y SIGNAL
YL SIGNAL
S1 SIGNAL
S2 SIGNAL
※NOTE
Table 1
Mark | R470 | R432
WHT | 3.3K | 4.7K
ORN | 4.7K | 5.6K
RED | 3.3K | 1.2K
GRN | 4.7K | 6.8K
THE VALUES OF R470 AND R432 ARE DIFFERENT ACCORDING TO THE COLOR MARKINGS OF IC409 (HD44052) AS SHOWN IN TABLE 1.
NOTE MARK "•" IS CHIP COMPONENT
(Sensor) P.C. Board
P (Pre amp) P.C. Board

## SENSOR/PRE AMP CIRCUIT BOARD




NOTE : MARK "● " IS CHIP COMPONENT.

SENSOR (S) P.C.Board

| Q001 | |
|---|---|
| B | 7.66 |
| C | 7.79 |
| E | 6.99 |

| Q002 | |
|---|---|
| B | 0.58 |
| C | 0.58 |
| E | 0.0 |

| Q003 | |
|---|---|
| B | 6.83 |
| C | 0.0 |
| E | 6.9 |

| Q004 | |
|---|---|
| B | 0.48 |
| C | 0.77 |
| E | 1.22 |

| Q005 | |
|---|---|
| B | 1.0 |
| C | 6.9 |
| E | 0.48 |

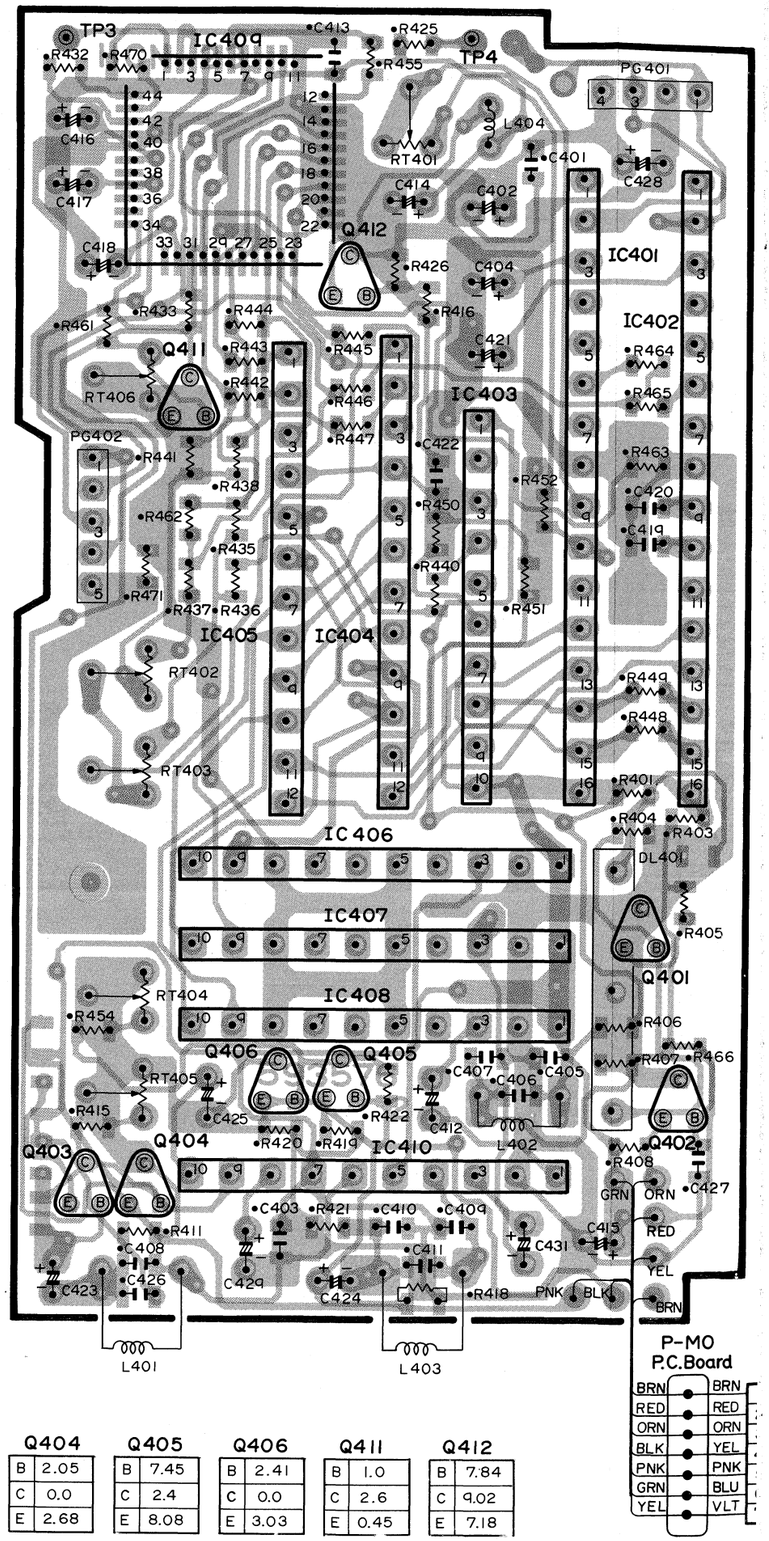
| Q006 | |
|---|---|
| B | 6.83 |
| C | 6.83 |
| E | 6.9 |

IC003

| 20 | 19 | 18 | 17 | 16 | 15 | 14 | 13 | 12 | 11 |
|---|---|---|---|---|---|---|---|---|---|
| 0.015 | 4.9 | 3.3 | 1.0 | 0.0 | 0.0 | 3.4 | 3.39 | 0.76 | 0.0 |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 6.89 | 0.76 | 0.148 | 0.47 | 6.01 | 0.795 | 2.5~3.3 | 2.5~3.3 | 0.018 | 0.0 |

IC004

| | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0.15 | 0.47 | 6.02 | 0.8 | 3.0 | 3.0 | 0.018 | 0.018 | 5.97 | 5.19 | 6.9 | |
| 22 | 0.016 | | | | | | | | | | | 0.0 34 |
| 21 | 6.9 | | | | | | | | | | | 0.018 35 |
| 20 | 1.22 | | | | | | | | | | | 0.22 36 |
| 19 | 5.06 | | | | | | | | | | | 0.12 37 |
| 18 | 6.9 | | | | | | | | | | | 6.82 38 |
| 17 | 3.36 | | | | | | | | | | | 0.0 39 |
| 16 | 5.06 | | | | | | | | | | | 6.9 40 |
| 15 | 0.0 | | | | | | | | | | | 0.0 41 |
| 14 | 2.1 | | | | | | | | | | | 0.0 42 |
| 13 | 3.81 | | | | | | | | | | | 3.28 43 |
| 12 | 6.9 | | | | | | | | | | | 3.64 44 |
| | 3.66 | 3.3 | 6.9 | 3.32 | 6.89 | 0.0 | 6.89 | 6.89 | 3.35 | 3.43 | 5.02 | |
| | 11 | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 | |



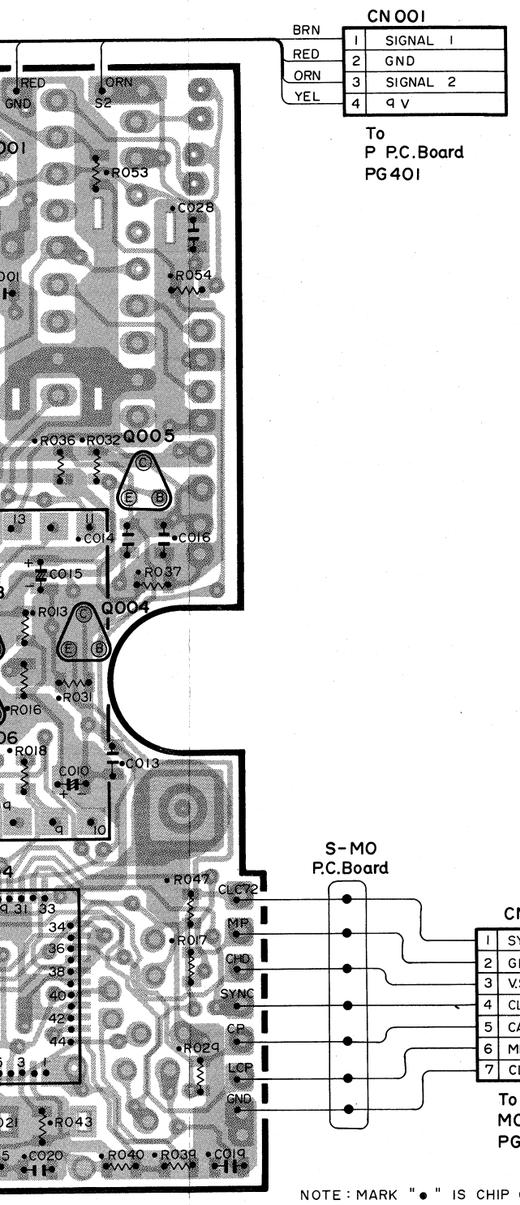

| Q404 | |
|---|---|
| B | 2.05 |
| C | 0.0 |
| E | 2.68 |

| Q405 | |
|---|---|
| B | 7.45 |
| C | 2.4 |
| E | 8.08 |

| Q406 | |
|---|---|
| B | 2.41 |
| C | 0.0 |
| E | 3.03 |

| Q411 | |
|---|---|
| B | 1.0 |
| C | 2.6 |
| E | 0.45 |

| Q412 | |
|---|---|
| B | 7.84 |
| C | 9.02 |
| E | 7.18 |




CN001

| | | |
|---|---|---|
| BRN | 1 | SIGNAL 1 |
| RED | 2 | GND |
| ORN | 3 | SIGNAL 2 |
| YEL | 4 | 9 V |

To
P P.C.Board
PG401

S-MO
P.C.Board

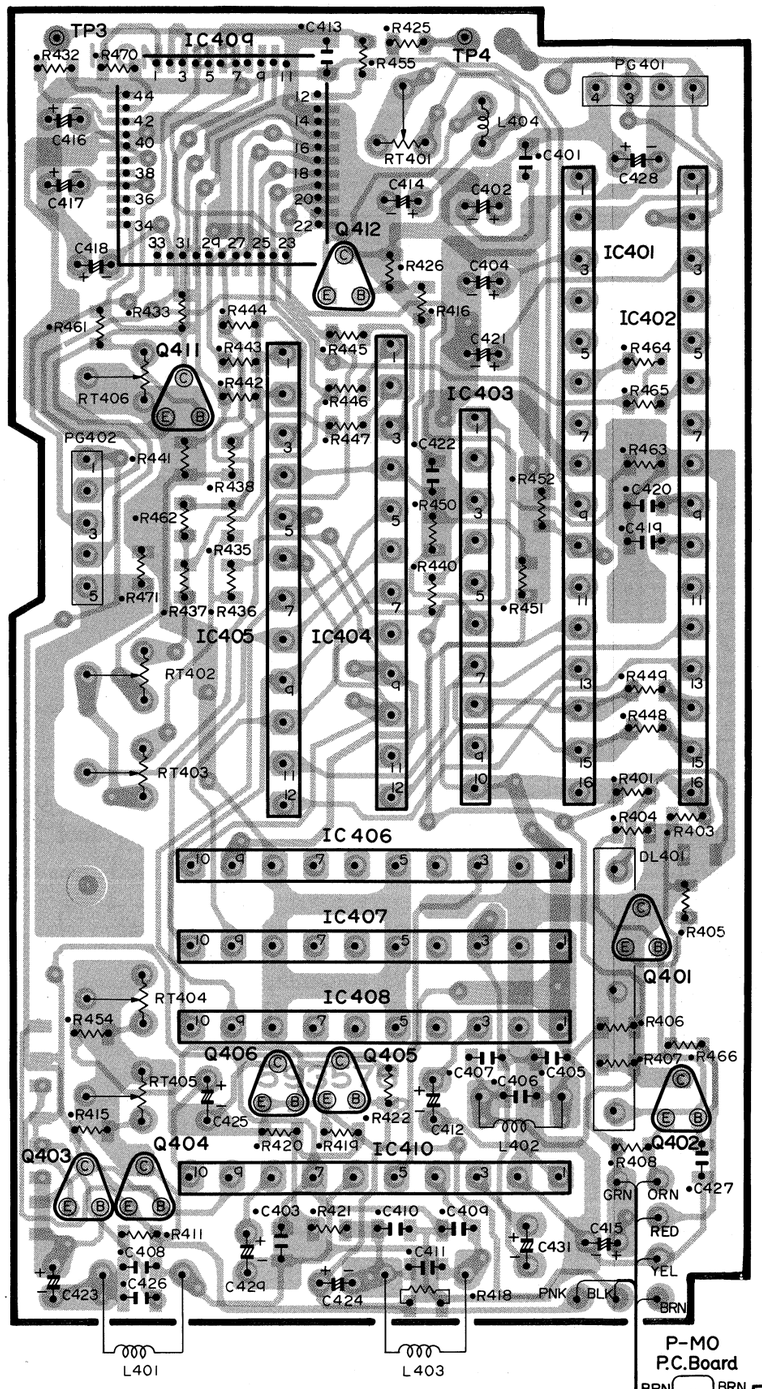
CN003

| | | |
|---|---|---|
| 1 | SYNC | |
| 2 | GND | |
| 3 | V.SMEAR CANCEL | |
| 4 | CLAMP PULSE | |
| 5 | CAMERA H.DRIVE | |
| 6 | MEMORY PULSE | |
| 7 | CLK 7.2MHz | |

To
MO P.C.Board
PG602

NOTE : MARK "● " IS CHIP COMPONENT.

(S) P.C.Board




PG401

| | | |
|---|---|---|
| 1 | SIGNAL 1 | |
| 2 | GND | |
| 3 | SIGNAL 2 | |
| 4 | 9 V | |

To
SENSOR P.C.Board
CN001

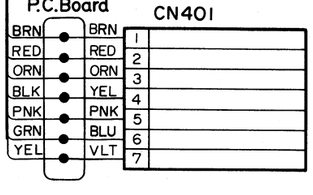
PG402

| | | |
|---|---|---|
| 1 | CLAMP PULSE | |
| 2 | H.I P | |
| 3 | CLK 7.2MHz | |
| 4 | SAMPLE RESET | |
| 5 | GND | |

To
SENSOR P.C.Board
CN002

NOTE : MARK "● " IS CHIP COMPONENT

P-MO
P.C.Board




CN401

| | |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |

PRE AMP
(P) P.C. Board

IC401

| | |
|---|---|
| 1 | 2.05 |
| 2 | 2.69 |
| 3 | 2.67 |
| 4 | 2.02 |
| 5 | 3.68 |
| 6 | 0.023 |
| 7 | 3.78 |
| 8 | 0.005 |
| 9 | 4.87 |
| 10 | 4.88 |
| 11 | 4.01 |
| 12 | 5.84 |
| 13 | 5.85 |
| 14 | 7.09 |
| 15 | 7.1 |
| 16 | 9.05 |

IC402

| | |
|---|---|
| 1 | 2.04 |
| 2 | 2.69 |
| 3 | 2.66 |
| 4 | 2.01 |
| 5 | 3.72 |
| 6 | 4.93 |
| 7 | 3.82 |
| 8 | 0.005 |
| 9 | 5.47 |
| 10 | 5.53 |
| 11 | 4.03 |
| 12 | 5.81 |
| 13 | 5.81 |
| 14 | 7.09 |
| 15 | 7.11 |
| 16 | 9.05 |

IC403

| | |
|---|---|
| 1 | 1.85 |
| 2 | 9.04 |
| 3 | 0.005 |
| 4 | 2.38 |
| 5 | 7.47 |
| 6 | 0.005 |
| 7 | 7.1 |
| 8 | 7.09 |
| 9 | 7.09 |
| 10 | 9.04 |

IC404

| | |
|---|---|
| 1 | 1.54 |
| 2 | 1.53 |
| 3 | 1.55 |
| 4 | 6.13 |
| 5 | 6.84 |
| 6 | 6.84 |
| 7 | 6.84 |
| 8 | 6.84 |
| 9 | 6.83 |
| 10 | 6.84 |
| 11 | 5.84 |
| 12 | 5.85 |

IC405

| | |
|---|---|
| 1 | 1.52 |
| 2 | 1.51 |
| 3 | 1.55 |
| 4 | 6.13 |
| 5 | 6.83 |
| 6 | 6.83 |
| 7 | 6.83 |
| 8 | 6.84 |
| 9 | 6.84 |
| 10 | 6.84 |
| 11 | 5.8 |
| 12 | 5.8 |

IC406

| 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
|---|---|---|---|---|---|---|---|---|---|
| 6.84 | 6.83 | 0.45 | 4.12 | 4.12 | 0.45 | 3.15 | 5.26 | 0.005 | 9.05 |

IC407

| 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
|---|---|---|---|---|---|---|---|---|---|
| 6.84 | 6.84 | 0.45 | 4.13 | 4.13 | 0.45 | 3.16 | 5.38 | 0.005 | 9.05 |

IC408

| 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
|---|---|---|---|---|---|---|---|---|---|
| 6.84 | 6.84 | 0.45 | 4.1 | 4.1 | 0.45 | 3.13 | 5.36 | 0.005 | 9.05 |

IC409

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 4.05 | 3.09 | 3.09 | 3.31 | 0.45 | 0.45 | 7.15 | 7.15 | 4.95 | 0.023 | 0.45 | |
| 44 | 3.85 | | | | | | | | | | | 0.45 12 |
| 43 | 3.65 | | | | | | | | | | | 0.45 13 |
| 42 | 3.82 | | | | | | | | | | | 0.45 14 |
| 41 | 0.45 | | | | | | | | | | | 1.2 15 |
| 40 | 0.45 | | | | | | | | | | | 1.2 16 |
| 39 | 4.58 | | | | | | | | | | | 1.22 17 |
| 38 | 3.82 | | | | | | | | | | | 1.21 18 |
| 37 | 2.83 | | | | | | | | | | | 1.22 19 |
| 36 | 3.92 | | | | | | | | | | | 1.25 20 |
| 35 | 3.91 | | | | | | | | | | | 7.16 21 |
| 34 | 2.6 | | | | | | | | | | | 7.16 22 |
| | 2.6 | 3.33 | 7.16 | 7.16 | 5.7 | 5.71 | 5.68 | 0.45 | 0.45 | 3.93 | 7.16 | |
| | 33 | 32 | 31 | 30 | 29 | 28 | 27 | 26 | 25 | 24 | 23 | |

IC410

| 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
|---|---|---|---|---|---|---|---|---|---|
| 1.65 | 0.21 | 1.82 | 9.05 | 2.1 | 5.27 | 2.09 | 1.72 | 0.005 | 1.71 |

Q401

| | |
|---|---|
| B | 0.91 |
| C | 0.0 |
| E | 1.53 |

Q402

| | |
|---|---|
| B | 0.92 |
| C | 0.0 |
| E | 1.54 |

Q403

| | |
|---|---|
| B | 7.37 |
| C | 2.05 |
| E | 8.0 |

Q404

| | |
|---|---|
| B | 2.05 |
| C | 0.0 |
| E | 2.68 |

Q405

| | |
|---|---|
| B | 7.45 |
| C | 2.4 |
| E | 8.08 |

Q406

| | |
|---|---|
| B | 2.41 |
| C | 0.0 |
| E | 3.03 |

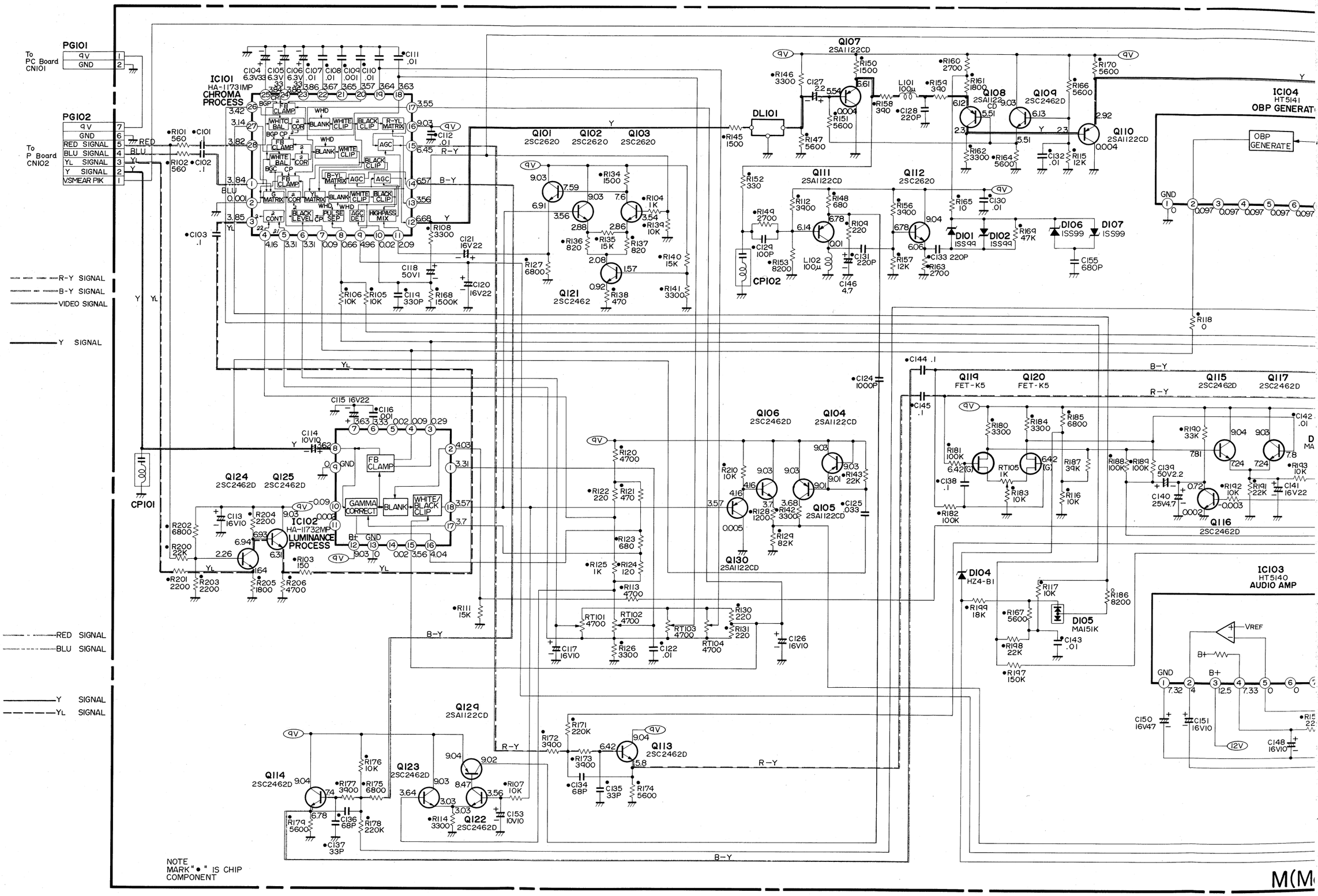
Q411

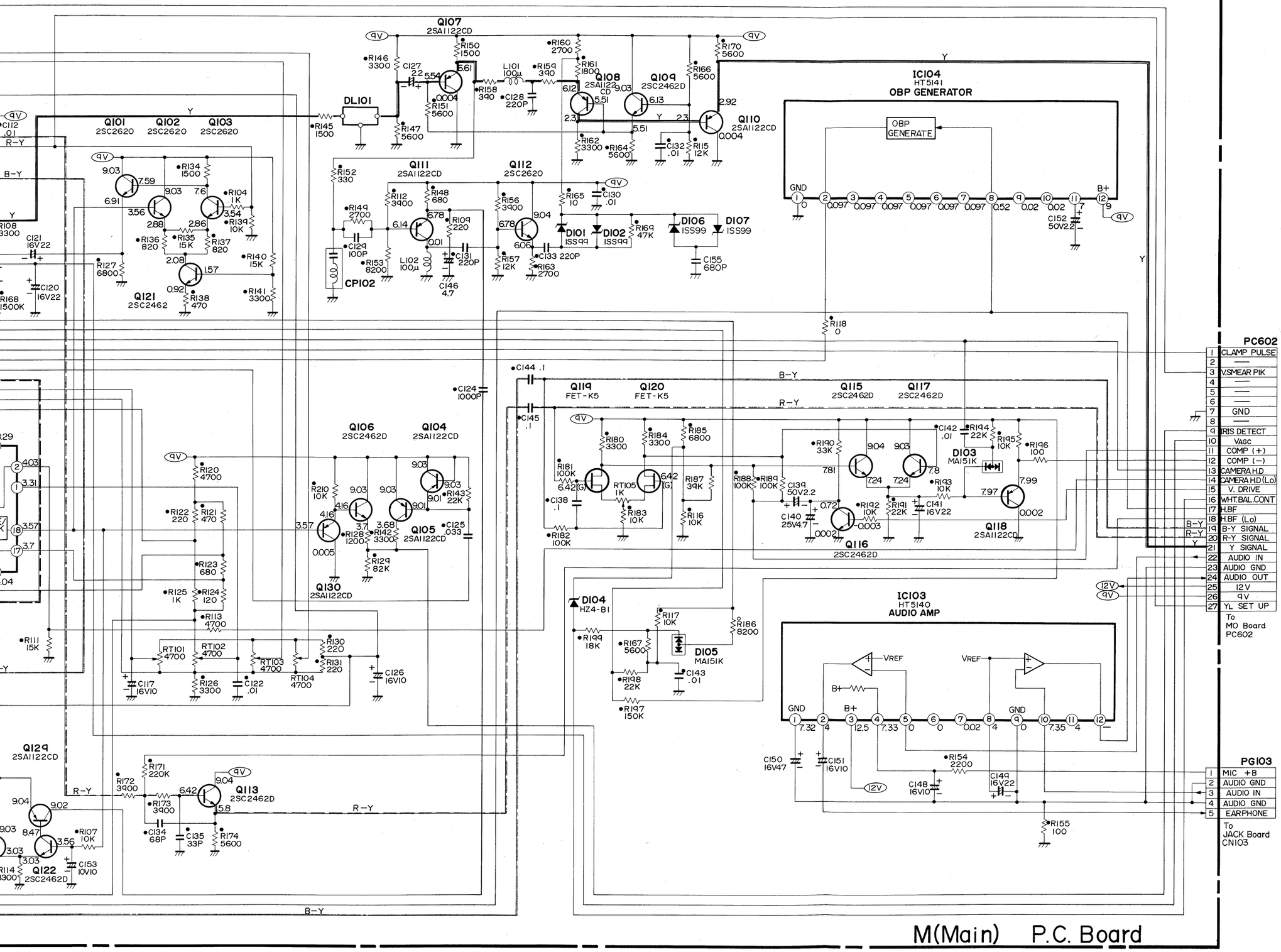
| | |
|---|---|
| B | 1.0 |
| C | 2.6 |
| E | 0.45 |

Q412

| | |
|---|---|
| B | 7.84 |
| C | 9.02 |
| E | 7.18 |

## MAIN CIRCUIT DIAGRAM




Q107 2SA1122CD
Q108 2SA1122CD
Q109 2SC2462D
Q110 2SA1122CD
Q101 2SC2620
Q102 2SC2620
Q103 2SC2620
Q111 2SA1122CD
Q112 2SC2620
Q121 2SC2462
DL101
CP102
IC104 HT5141 OBP GENERATOR
OBP GENERATE
D101 ISS99
D102 ISS99
D106 ISS99
D107 ISS99
Q119 FET-K5
Q120 FET-K5
Q115 2SC2462D
Q117 2SC2462D
Q106 2SC2462D
Q104 2SA1122CD
Q105 2SA1122CD
Q130 2SA1122CD
Q116 2SC2462D
Q118 2SA1122CD
D103 MA151K
D104 HZ4-B1
D105 MA151K
IC103 HT5140 AUDIO AMP
Q129 2SA1122CD
Q122 2SC2462D
Q113 2SC2462D
PC602
1 CLAMP PULSE
2 —
3 V.SMEAR PIK
4 —
5 —
6 —
7 GND
8 —
9 IRIS DETECT
10 VAGC
11 COMP (+)
12 COMP (−)
13 CAMERA H.D
14 CAMERA H.D (Lo)
15 V. DRIVE
16 WHT.BAL.CONT
17 H.BF
18 H.BF (Lo)
19 B-Y SIGNAL
20 R-Y SIGNAL
21 Y SIGNAL
22 AUDIO IN
23 AUDIO GND
24 AUDIO OUT
25 12V
26 9V
27 YL SET UP
To MO Board PC602
PG103
1 MIC +B
2 AUDIO GND
3 AUDIO IN
4 AUDIO GND
5 EARPHONE
To JACK Board CN103
M(Main) P.C. Board

# MAIN CIRCUIT BOARD

| Q101 | |
|---|---|
| B | 7.59 |
| C | 9.03 |
| E | 6.91 |

| Q102 | |
|---|---|
| B | 3.56 |
| C | 9.03 |
| E | 2.88 |

| Q103 | |
|---|---|
| B | 3.54 |
| C | 7.6 |
| E | 2.86 |

| Q104 | |
|---|---|
| B | 9.03 |
| C | 9.03 |
| E | 9.01 |

| Q105 | |
|---|---|
| B | 9.01 |
| C | 3.68 |
| E | 9.03 |

| Q106 | |
|---|---|
| B | 4.16 |
| C | 9.03 |
| E | 3.7 |

| Q107 | |
|---|---|
| B | 5.54 |
| C | 0.004 |
| E | 6.16 |

| Q108 | |
|---|---|
| B | 5.51 |
| C | 2.3 |
| E | 6.12 |

| Q109 | |
|---|---|
| B | 6.13 |
| C | 9.03 |
| E | 5.51 |

| Q110 | |
|---|---|
| B | 2.3 |
| C | 0.004 |
| E | 2.92 |

| Q111 | |
|---|---|
| B | 6.14 |
| C | 0.01 |
| E | 6.78 |

| Q112 | |
|---|---|
| B | 6.78 |
| C | 9.04 |
| E | 6.06 |

| Q113 | |
|---|---|
| B | 6.42 |
| C | 9.04 |
| E | 5.8 |

| Q114 | |
|---|---|
| B | 7.4 |
| C | 9.04 |
| E | 6.78 |

| Q115 | |
|---|---|
| B | 7.81 |
| C | 9.04 |
| E | 7.24 |

| Q116 | |
|---|---|
| B | −0.003 |
| C | 0.72 |
| E | 0.002 |

| Q117 | |
|---|---|
| B | 7.8 |
| C | 9.03 |
| E | 7.24 |

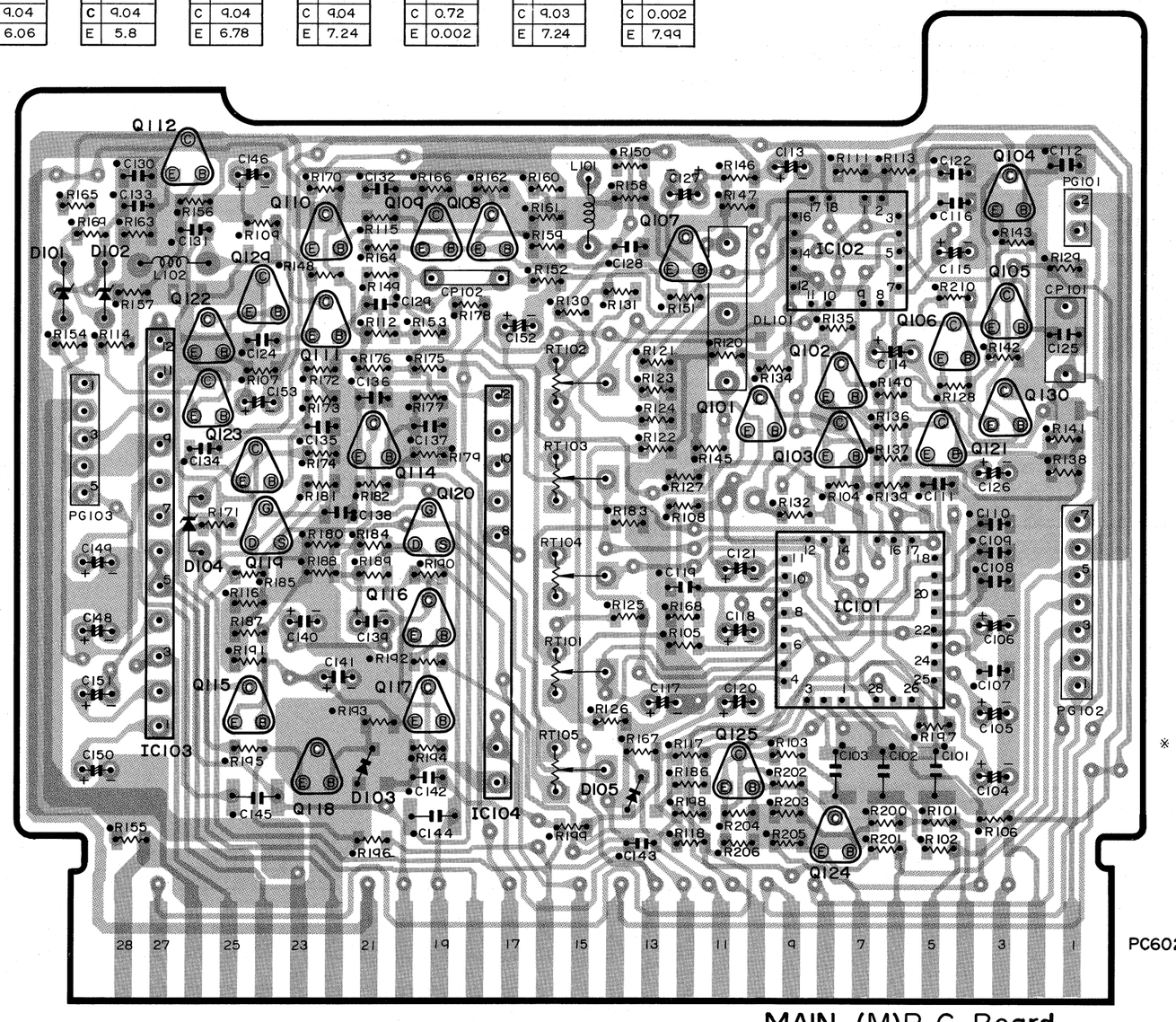
| Q118 | |
|---|---|
| B | 7.97 |
| C | 0.002 |
| E | 7.99 |

| PG103 | |
|---|---|
| MIC +B | 1 |
| AUDIO GND | 2 |
| AUDIO IN | 3 |
| AUDIO GND | 4 |
| EARPHONE | 5 |

To
JACK Board
CN103

| PC602 | |
|---|---|
| CLAMP PULSE | 1 |
| —— | 2 |
| Y. SIGNAL | 3 |
| —— | 4 |
| —— | 5 |
| —— | 6 |
| G N D | 7 |
| —— | 8 |
| IRIS DETECT | 9 |
| VAGC | 10 |
| COMP(+) | 11 |
| COMP(−) | 12 |
| CAMERA H.D | 13 |
| CAMERA H.D(Lo) | 14 |
| V. DRIVE | 15 |
| WHT. BAL. CONT | 16 |
| H. BF | 17 |
| H. BF(Lo) | 18 |
| B−Y SIGNAL | 19 |
| R−Y SIGNAL | 20 |
| Y SIGNAL | 21 |
| AUDIO IN | 22 |
| AUDIO GND | 23 |
| AUDIO OUT | 24 |
| 12 V | 25 |
| 9 V | 26 |
| YL SET UP | 27 |
| | 28 |

To
MO Board
PC602




MAIN (M)P. C. Board

| PG101 | |
|---|---|
| 2 | GND |
| 1 | 9 V |

To
PC Board
CN101

| PG102 | |
|---|---|
| 7 | 9 V |
| 6 | GND |
| 5 | RED SIGNAL |
| 4 | BLU SIGNAL |
| 3 | YL SIGNAL |
| 2 | Y SIGNAL |
| 1 | Y SIGNAL |

To
P Board
CN102

※ NOTE: MARK "●" IS CHIP COMPONENT

IC101

| | 12 | 13 | 14 | 15 | 16 | 17 | |
|---|---|---|---|---|---|---|---|
| | 6.68 | 3.56 | 6.57 | 6.45 | 9.03 | 3.55 | |
| 11 | 2.09 | | | | | 3.63 | 18 |
| 10 | 0.02 | | | | | 3.64 | 19 |
| 9 | 4.96 | | | | | 3.57 | 20 |
| 8 | 0.66 | | | | | 3.65 | 21 |
| 7 | 0.09 | | | | | 3.67 | 22 |
| 6 | 3.31 | | | | | 3.86 | 23 |
| 5 | 3.31 | | | | | 3.86 | 24 |
| 4 | 4.16 | | | | | 3.84 | 25 |
| | 3.85 | 0.001 | 3.84 | 3.82 | 3.14 | 3.42 | |
| | 3 | 2 | 1 | 28 | 27 | 26 | |

IC102

| | 17 | 18 | 1 | 2 | |
|---|---|---|---|---|---|
| | 3.7 | 3.57 | 3.31 | 4.03 | |
| 16 | 4.04 | | | 0.29 | 3 |
| 15 | 3.56 | | | 0.09 | 4 |
| 14 | 0.02 | | | 0.02 | 5 |
| 13 | 0.0 | | | 3.33 | 6 |
| 12 | 9.03 | | | 3.63 | 7 |
| | 0.002 | −0.09 | 0.0 | 3.62 | |
| | 11 | 10 | 9 | 8 | |

IC103

| | |
|---|---|
| 12 | — |
| 11 | 4.0 |
| 10 | 7.35 |
| 9 | 0.0 |
| 8 | 4.0 |
| 7 | 0.02 |
| 6 | 0.0 |
| 5 | 0.0 |
| 4 | 7.33 |
| 3 | 12.5 |
| 2 | 4.0 |
| 1 | 7.32 |

IC104

| | |
|---|---|
| 12 | 9.0 |
| 11 | 7.0 |
| 10 | 0.02 |
| 9 | 0.02 |
| 8 | 0.52 |
| 7 | 0.097 |
| 6 | 0.097 |
| 5 | 0.097 |
| 4 | 0.097 |
| 3 | 0.097 |
| 2 | 0.097 |
| 1 | 0.0 |

| Q119 | |
|---|---|
| G | 6.42 |
| S | 5.85 |
| D | 7.8 |

| Q120 | |
|---|---|
| G | 6.42 |
| S | 5.87 |
| D | 7.8 |

| Q121 | |
|---|---|
| B | 1.57 |
| C | 2.08 |
| E | 0.92 |

| Q122 | |
|---|---|
| B | 3.56 |
| C | 8.47 |
| E | 3.03 |

| Q123 | |
|---|---|
| B | 3.64 |
| C | 9.03 |
| E | 3.03 |

| Q124 | |
|---|---|
| B | 2.26 |
| C | 6.94 |
| E | 1.64 |

| Q125 | |
|---|---|
| B | 6.93 |
| C | 9.03 |
| E | 6.31 |

| Q129 | |
|---|---|
| B | 8.47 |
| C | 9.02 |
| E | 9.04 |

| Q130 | |
|---|---|
| B | 3.57 |
| C | 0.005 |
| E | 4.16 |

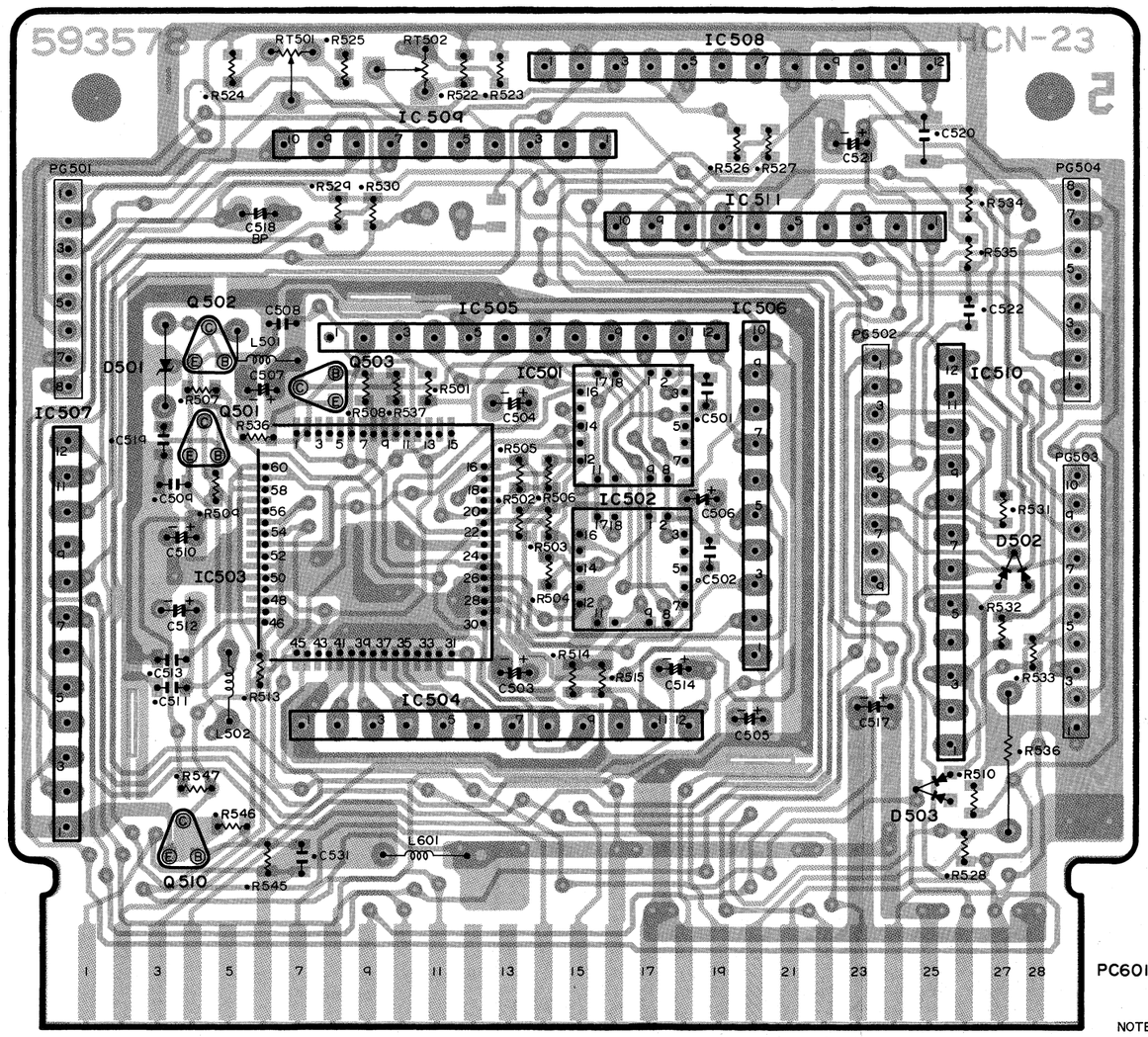
## V. SMEAR/INTERFACE CIRCUIT DIAGRAM

**PG501**

| | |
|---|---|
| 1 | DRIVE (+) |
| 2 | DRIVE (−) |
| 3 | DAMP (+) |
| 4 | —— |
| 5 | WIDE (+) |
| 6 | TELE (+) |
| 7 | GND |
| 8 | DAMP |

**PC601**

| | |
|---|---|
| 1 | CLK 7.2MHz |
| 2 | MEMORY PULSE |
| 3 | CLAMP PULSE |
| 4 | LCS |
| 5 | —— |
| 6 | 12V |
| 7 | YOUT |
| 8 | IRIS DETECT |
| 9 | VAGC |
| 10 | COMP.(+) |
| 11 | COMP.(−) |
| 12 | CAMERA H.D |
| 13 | CAMERA H.D(Lo) |
| 14 | V. DRIVE |
| 15 | WHT. BAL. CONT |
| 16 | —— |
| 17 | |
| 18 | $\overline{\text{REC}}$ 9V |
| 19 | REMOTE |
| 20 | VIDEO |
| 21 | VIDEO |
| 22 | AUDIO |
| 23 | VIDEO COMP. |
| 24 | AUDIO GND |
| 25 | 12V |
| 26 | 9V |
| 27 | POWER CONT. |
| 28 | GND |




PC601

**PG504**

| | |
|---|---|
| 1 | REMOTE |
| 2 | "V" DISPLAY |
| 3 | VIDEO |
| 4 | 12V |
| 5 | "L" DISPLAY |
| 6 | "B" DISPLAY |
| 7 | GND |
| 8 | ZOOM |

**PG502**

| | |
|---|---|
| 1 | 9V |
| 2 | WHT. BAL. CONT |
| 3 | GND |
| 4 | POWER SAVE 1 |
| 5 | POWER SAVE 2 |
| 6 | POWER SAVE 9V |
| 7 | 12V (EVF) |
| 8 | 12V |
| 9 | WHT. BAL. COMP |

**PG503**

| | |
|---|---|
| 1 | GND |
| 2 | ZOOM |
| 3 | REMOTE |
| 4 | AUDIO GND |
| 5 | VTR CONT. |
| 6 | F.F 1 |
| 7 | F.F 2 |
| 8 | REMOTE SELEC |
| 9 | VIDEO |
| 10 | VIDEO |

NOTE: MARK "●" IS CHIP COMPONENT.

## V. SMEAR/INTERFACE (LI)P. C. Board

**IC501**

| | 17 | 18 | 1 | 2 | | |
|---|---|---|---|---|---|---|
| | 0.84 | 0.45 | 0.85 | 0.74 | | |
| 16 | 0.55 | | | | 0.83 | 3 |
| 15 | 0.55 | | | | 0.8 | 4 |
| 14 | 0.55 | | | | 0.74 | 5 |
| 13 | 0.55 | | | | 0.75 | 6 |
| 12 | 0.55 | | | | 0.78 | 7 |
| | −0.035 | 0.84 | −0.036 | 0.61 | | |
| | 11 | 10 | 9 | 8 | | |

**IC502**

| | 17 | 18 | 1 | 2 | | |
|---|---|---|---|---|---|---|
| | 0.9 | 0.08 | 0.89 | 0.04 | | |
| 16 | 0.52 | | | | 0.74 | 3 |
| 15 | 0.57 | | | | 0.71 | 4 |
| 14 | 0.57 | | | | 0.7 | 5 |
| 13 | 0.57 | | | | 0.67 | 6 |
| 12 | 0.57 | | | | 0.65 | 7 |
| | −0.03 | −0.03 | −0.03 | 0.64 | | |
| | 11 | 10 | 9 | 8 | | |

**IC503**

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0.94 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.09 | 4.73 | 4.36 | 4.53 | 4.22 | 2.95 | 0.02 | 0.3 | | |
| 60 | 8.7 | | | | | | | | | | | | | | | 8.7 | 16 |
| 59 | 8.7 | | | | | | | | | | | | | | | 0.57 | 17 |
| 58 | 8.7 | | | | | | | | | | | | | | | 0.57 | 18 |
| 57 | −0.03 | | | | | | | | | | | | | | | 0.02 | 19 |
| 56 | −0.03 | | | | | | | | | | | | | | | 0.57 | 20 |
| 55 | 0.04 | | | | | | | | | | | | | | | 0.57 | 21 |
| 54 | 0.38 | | | | | | | | | | | | | | | 0.57 | 22 |
| 53 | 8.7 | | | | | | | | | | | | | | | −0.03 | 23 |
| 52 | 0.02 | | | | | | | | | | | | | | | 0.02 | 24 |
| 51 | −0.03 | | | | | | | | | | | | | | | 0.94 | 25 |
| 50 | −0.03 | | | | | | | | | | | | | | | −0.02 | 26 |
| 49 | −0.03 | | | | | | | | | | | | | | | −0.01 | 27 |
| 48 | 0.3 | | | | | | | | | | | | | | | −0.01 | 28 |
| 47 | 0.0 | | | | | | | | | | | | | | | 8.68 | 29 |
| 46 | 0.04 | | | | | | | | | | | | | | | 0.06 | 30 |
| | 0.04 | 0.04 | 0.02 | 8.7 | 8.3 | 0.07 | 0.05 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.03 | 0.03 | 0.02 | | |
| | 45 | 44 | 43 | 42 | 41 | 40 | 39 | 38 | 37 | 36 | 35 | 34 | 33 | 32 | 31 | | |

**IC504**

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.0 | 0.015 | 0.015 | 0.016 | 0.018 | 0.02 | 0.026 | 0.036 | 0.058 | 1.86 | 9.0 | 7.1 |

**IC505**

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.14 | 0.96 | 0.3 | 0.67 | 9.0 | 12.0 | 0.0 | 0.65 | 0.74 | 0.88 | 0.81 | 1.0 |

**IC508**

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | |

**IC509**

| 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
|---|---|---|---|---|---|---|---|---|---|
| 0.0 | 3.72 | 3.73 | 2.16 | 3.74 | 1.47 | 5.6 | 9.0 | 1.32 | 4.9 |

**IC511**

| 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
|---|---|---|---|---|---|---|---|---|---|
| 8.7 | 0.013 | 0.0 | 8.7 | 0.0 | 0.013 | 0.1 | 0.018 | 0.12 | −0.19 |

**IC506**

| | |
|---|---|
| 10 | 9.0 |
| 9 | 0.0 |
| 8 | 1.6 |
| 7 | 1.0 |
| 6 | 0.014 |
| 5 | 1.55 |
| 4 | 5.85 |
| 3 | 0.014 |
| 2 | 0.013 |
| 1 | 3.73 |

**IC507**

| | |
|---|---|
| 12 | 8.0 |
| 11 | 2.12 |
| 10 | 2.2 |
| 9 | 2.76 |
| 8 | 12.7 |
| 7 | 0.0 |
| 6 | 2.41 |
| 5 | 1.36 |
| 4 | 8.7 |
| 3 | 7.9 |
| 2 | 2.37 |
| 1 | 0.0 |

**IC510**

| | |
|---|---|
| 12 | 8.7 |
| 11 | 5.65 |
| 10 | 7.0 |
| 9 | 0.003 |
| 8 | 0.001 |
| 7 | 0.063 |
| 6 | 0.063 |
| 5 | −0.001 |
| 4 | 0.04 |
| 3 | 0.013 |
| 2 | 0.003 |
| 1 | 5.66 |

**Q501**

| | |
|---|---|
| B | 7.82 |
| C | 8.87 |
| E | 7.1 |

**Q502**

| | |
|---|---|
| B | 0.58 |
| C | 0.58 |
| E | −0.016 |

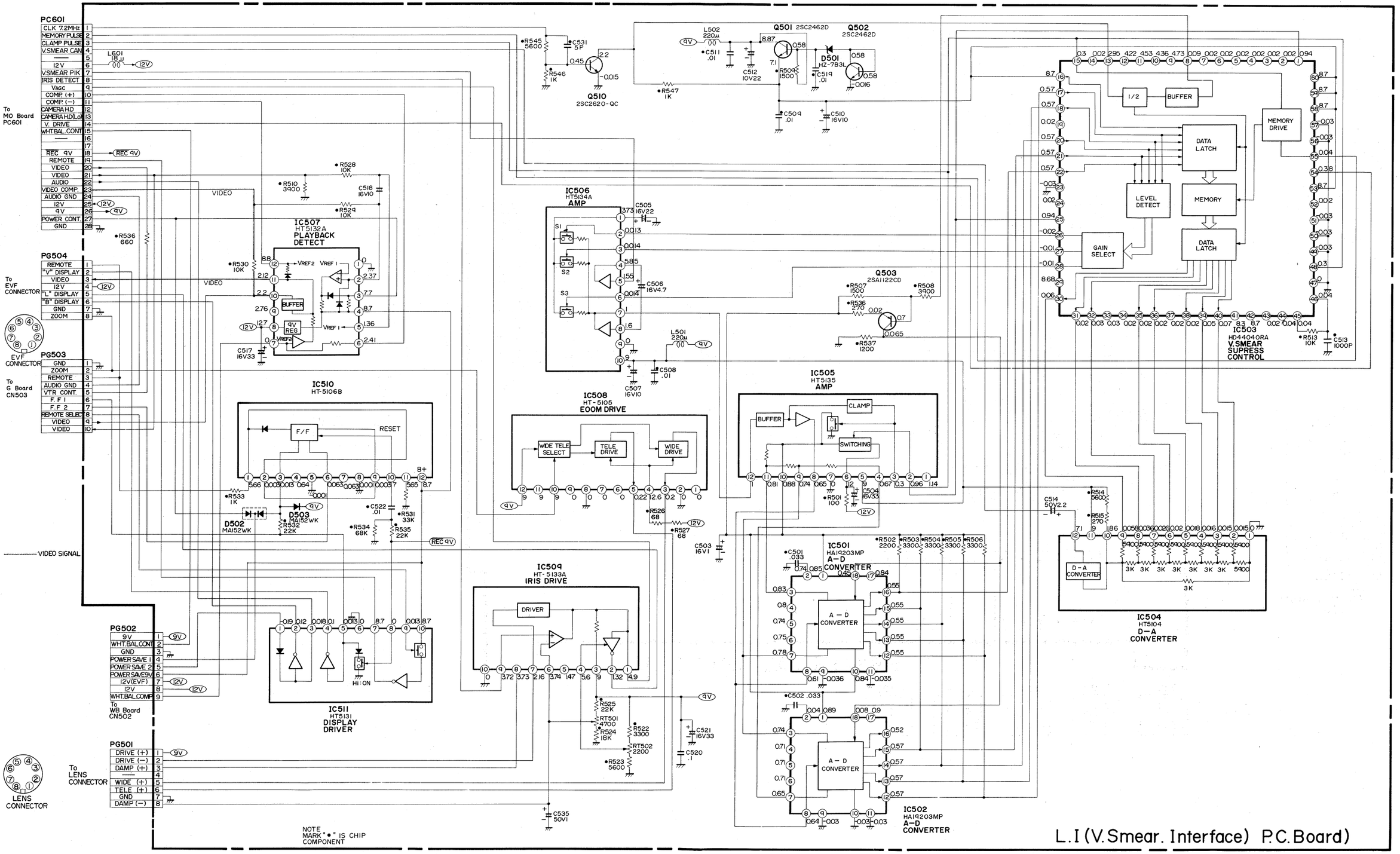
**Q503**

| | |
|---|---|
| B | 0.7 |
| C | 0.065 |
| E | 0.02 |

**Q510**

| | |
|---|---|
| B | 0.45 |
| C | 2.2 |
| E | −0.015 |

# V. SEMEAR/INTERFACE CIRCUIT BOARD



## ENCODER (PAL) CIRCUIT BOARD

**PM301**

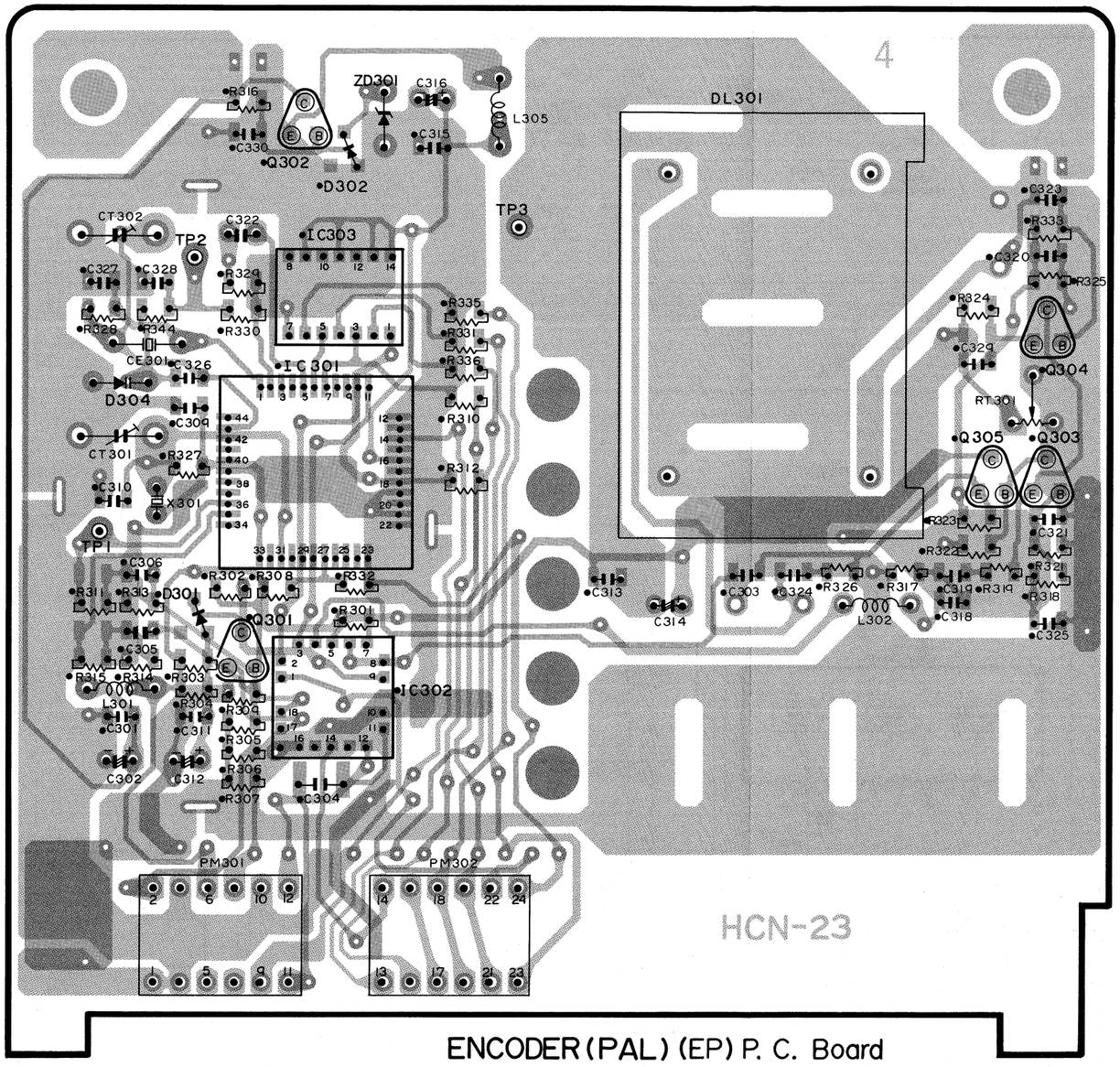
| | |
|---|---|
| 1 | GND |
| 2 | VIDEO IN/OUT |
| 3 | GND |
| 4 | GND |
| 5 | 9V |
| 6 | 9V |
| 7 | VIDEO COMP. |
| 8 | VIDEO COMP. |
| 9 | GND |
| 10 | |
| 11 | Y SIGNAL |
| 12 | R-Y SIGNL |

To
MO P. C. Board
PG606

**PM302**

| | |
|---|---|
| 13 | H.BF(Lo) |
| 14 | B-Y SIGNAL |
| 15 | H.BF |
| 16 | —— |
| 17 | —— |
| 18 | V.DRIVE |
| 19 | V.DRIVE |
| 20 | CAMERA H.D(Lo) |
| 21 | CAMERA H.D(Lo) |
| 22 | CLAMP PULSE |
| 23 | CAMERAHD |
| 24 | SYNC |

To
MO P. C. Board
PG605




ENCODER (PAL) (EP) P. C. Board

**IC301**

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 3.31 | 1.92 | 0.02 | 0.02 | 3.5 | 6.86 | 5.55 | 0.02 | 0.26 | 5.14 | 0.26 | | |
| 44 | 0.02 | | | | | | | | | | | 0.02 | 12 |
| 43 | 3.23 | | | | | | | | | | | 5.65 | 13 |
| 42 | 0.02 | | | | | | | | | | | 0.13 | 14 |
| 41 | 0.17 | | | | | | | | | | | 0.02 | 15 |
| 40 | 5.84 | | | | | | | | | | | 6.9 | 16 |
| 39 | 0.0 | | | | | | | | | | | 0.02 | 17 |
| 38 | 0.02 | | | | | | | | | | | 0.53 | 18 |
| 37 | 0.02 | | | | | | | | | | | 0.02 | 19 |
| 36 | 1.89 | | | | | | | | | | | 0.02 | 20 |
| 35 | 1.89 | | | | | | | | | | | 0.02 | 21 |
| 34 | 0.02 | | | | | | | | | | | 0.02 | 22 |
| | 3.0 | 0.02 | 3.3 | 0.0 | 0.02 | 6.93 | 6.07 | 0.02 | 0.28 | 6.84 | 0.26 | | |
| | 33 | 32 | 31 | 30 | 29 | 28 | 27 | 26 | 25 | 24 | 23 | | |

**IC302**

| | 3 | 4 | 5 | 6 | 7 | | |
|---|---|---|---|---|---|---|---|
| | 0.26 | 6.56 | 9.02 | 1.37 | 8.28 | | |
| 2 | 5.19 | | | | | 5.37 | 8 |
| 1 | 0.29 | | | | | −0.01 | 9 |
| 18 | 2.33 | | | | | 0.002 | 10 |
| 17 | 2.33 | | | | | 6.44 | 11 |
| | −0.01 | 6.57 | 5.92 | 6.57 | 5.87 | | |
| | 16 | 15 | 14 | 13 | 12 | | |

**IC303**

| 8 | 9 | 10 | 11 | 12 | 13 | 14 |
|---|---|---|---|---|---|---|
| −0.001 | 6.93 | −0.01 | 6.93 | −0.001 | 6.93 | 6.93 |
| 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| −0.001 | 0.009 | 6.86 | 1.06 | 5.55 | 6.42 | 5.31 |

**Q301**

| | |
|---|---|
| B | 3.13 |
| C | 7.57 |
| E | 2.53 |

**Q302**

| | |
|---|---|
| B | 7.66 |
| C | 8.98 |
| E | 6.97 |

**Q303**

| | |
|---|---|
| B | 3.99 |
| C | 7.18 |
| E | 3.27 |

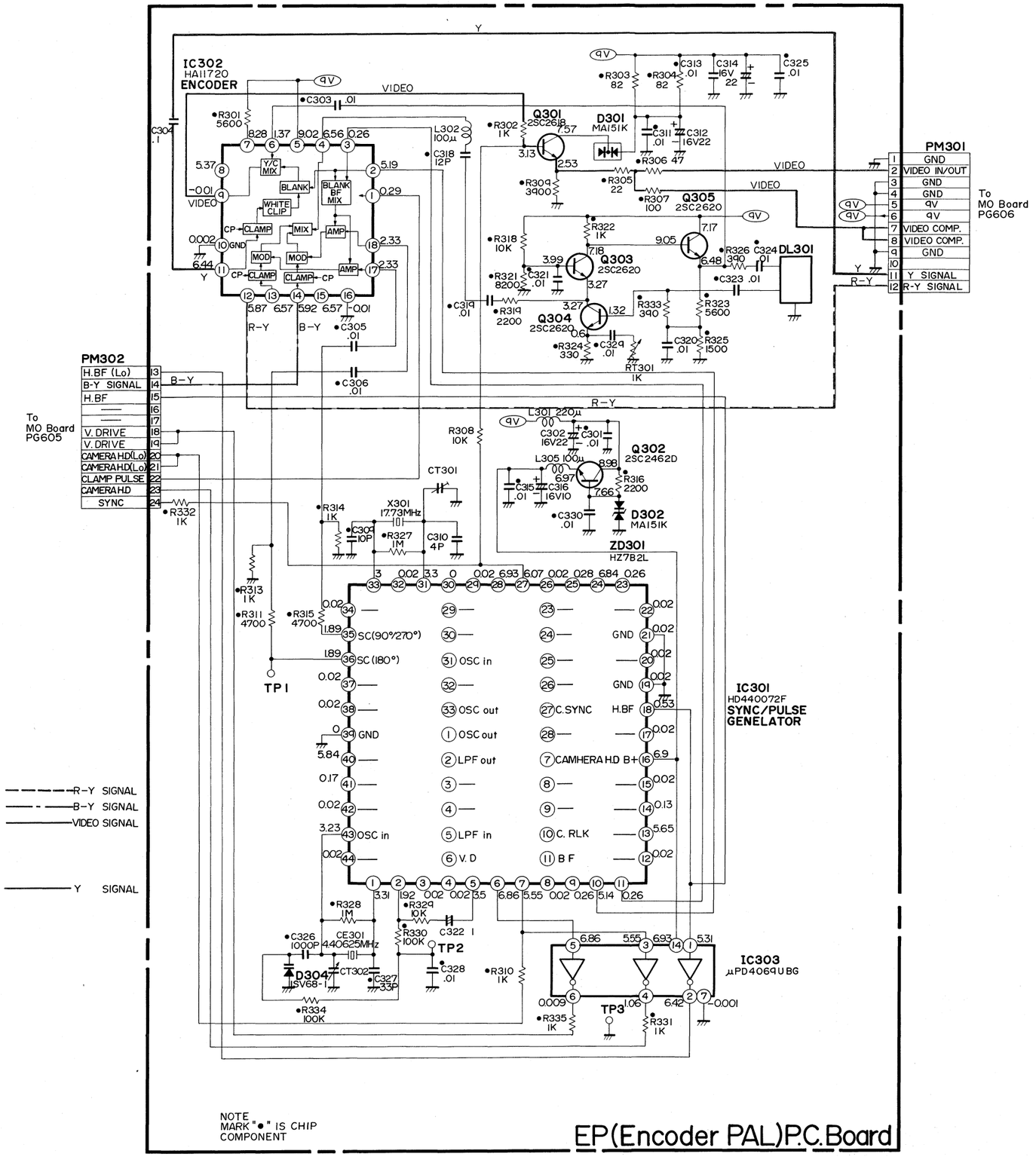
**Q304**

| | |
|---|---|
| B | 1.32 |
| C | 3.27 |
| E | 0.6 |

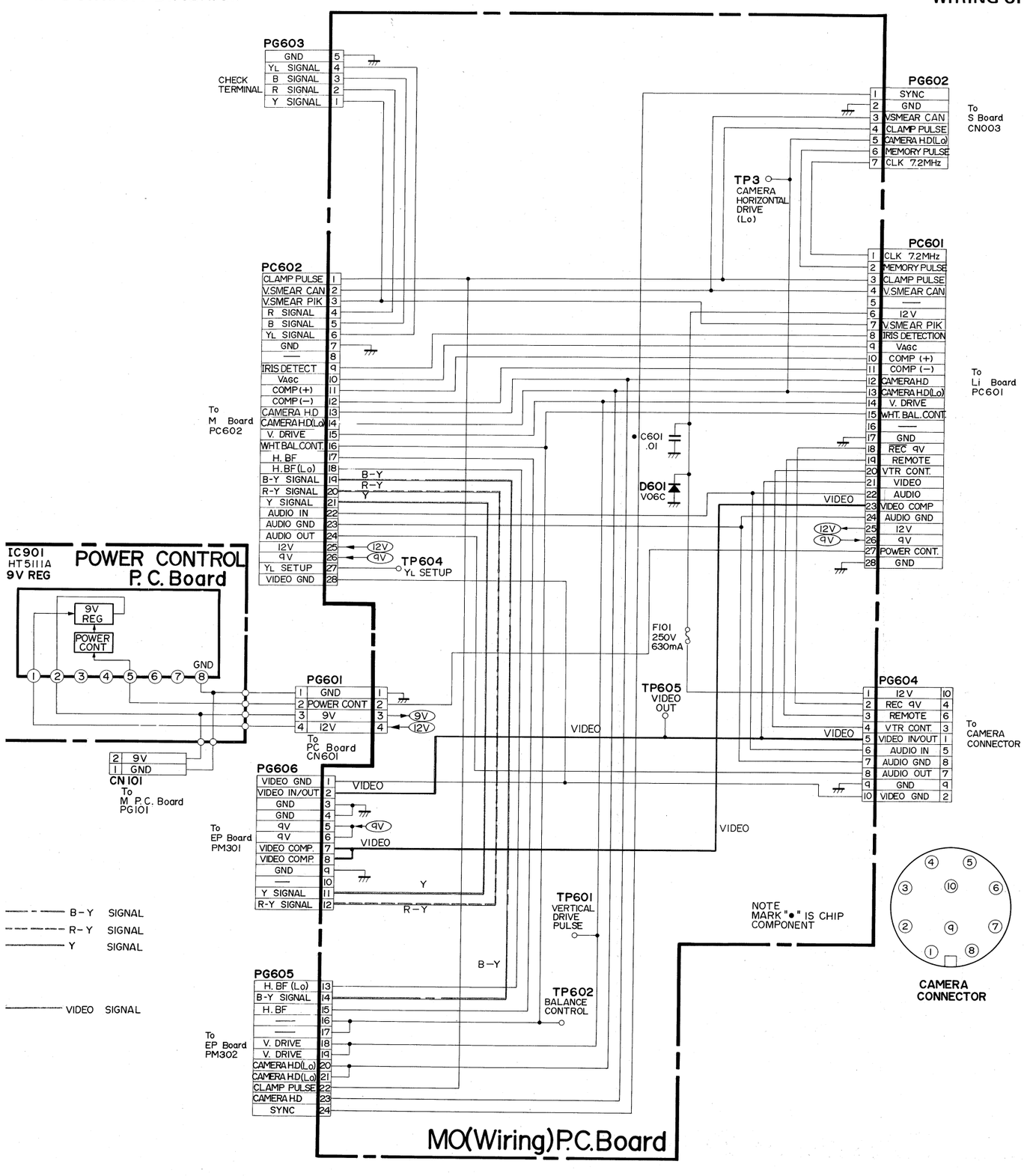
**Q305**

| | |
|---|---|
| B | 9.05 |
| C | 7.17 |
| E | 6.48 |

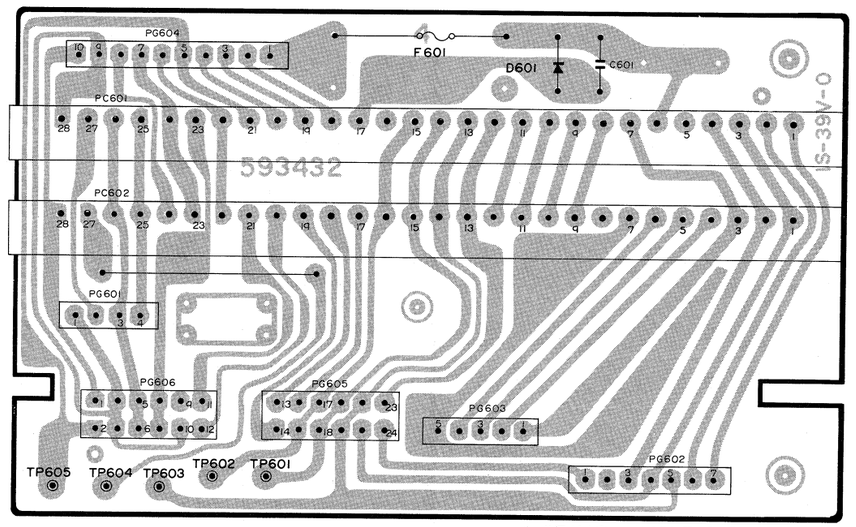
## ENCODER (PAL) CIRCUIT DIAGRAM



## WIRING CIRCUIT DIAGRAM




## WIRING CIRCUIT BOARD




WIRING (MO) P.C. Board

**PG601**

| | |
|---|---|
| 1 | GND |
| 2 | POWER CONT |
| 3 | 9V |
| 4 | 12V |

To PC Board CN601

**PG602**

| | |
|---|---|
| 1 | SYNC |
| 2 | GND |
| 3 | V.SMEAR CAN |
| 4 | CLAMP PULSE |
| 5 | CAMERA H.D (Lo) |
| 6 | MEMORY PULSE |
| 7 | CLK 7.2MHz |

To S Board CN003

**PG603**

| | |
|---|---|
| 5 | GND |
| 4 | YL SIGNAL |
| 3 | B SIGNAL |
| 2 | R SIGNAL |
| 1 | Y SIGNAL |

CHECK TERMINAL

**PG604**

| | |
|---|---|
| 1 | 12V |
| 2 | REC 9V |
| 3 | REMOTE |
| 4 | VTR CONT. |
| 5 | VIDEO IN/OUT |
| 6 | AUDIO IN |
| 7 | AUDIO GND |
| 8 | AUDIO OUT |
| 9 | GND |
| 10 | VIDEO GND |

To CAMERA CONNECTOR

**PC602**

| | |
|---|---|
| 1 | CLAMP PULSE |
| 2 | LCS |
| 3 | LCS |
| 4 | R SIGNAL |
| 5 | B SIGNAL |
| 6 | Y SIGNAL |
| 7 | GND |
| 8 | — |
| 9 | IRIS DETECT |
| 10 | Vagc |
| 11 | COMP (+) |
| 12 | COMP (−) |
| 13 | CAMERA H.D |
| 14 | CAMERA H.D (Lo) |
| 15 | V. DRIVE |
| 16 | WHT. BAL. CONT. |
| 17 | H. BF |
| 18 | H. BF (Lo) |
| 19 | B-Y SIGNAL |
| 20 | R-Y SIGNAL |
| 21 | Y SIGNAL |
| 22 | AUDIO IN |
| 23 | AUDIO GND |
| 24 | AUDIO OUT |
| 25 | 12V |
| 26 | 9V |
| 27 | YL SETUP |
| 28 | VIDEO GND |

To M Board PC602

**PG605**

| | |
|---|---|
| 13 | H. BF (Lo) |
| 14 | B-Y SIGNAL |
| 15 | H. BF |
| 16 | WHT. BAL |
| 17 | WHT. BAL |
| 18 | V. DRIVE |
| 19 | V. DRIVE |
| 20 | CAMERA H.D (Lo) |
| 21 | CAMERA H.D (Lo) |
| 22 | CLAMP PULSE |
| 23 | CAMERA H.D |
| 24 | SYNC |

To EP Board PM302

**PC601**

| | |
|---|---|
| 1 | CLK 7.2MHz |
| 2 | MEMORY PULSE |
| 3 | CLAMP PULSE |
| 4 | LCS |
| 5 | — |
| 6 | 12V |
| 7 | Y SIGNAL |
| 8 | IRIS DETECTION |
| 9 | Vagc |
| 10 | COMP (+) |
| 11 | COMP (−) |
| 12 | CAMERA H.D |
| 13 | CAMERA H.D (Lo) |
| 14 | V. DRIVE |
| 15 | WHT. BAL. CONT |
| 16 | — |
| 17 | GND |
| 18 | REC 9V |
| 19 | REMOTE |
| 20 | VTR CONT. |
| 21 | VIDEO |
| 22 | AUDIO |
| 23 | VIDEO COMP |
| 24 | AUDIO GND |
| 25 | 12V |
| 26 | 9V |
| 27 | POWER CONT. |
| 28 | GND |

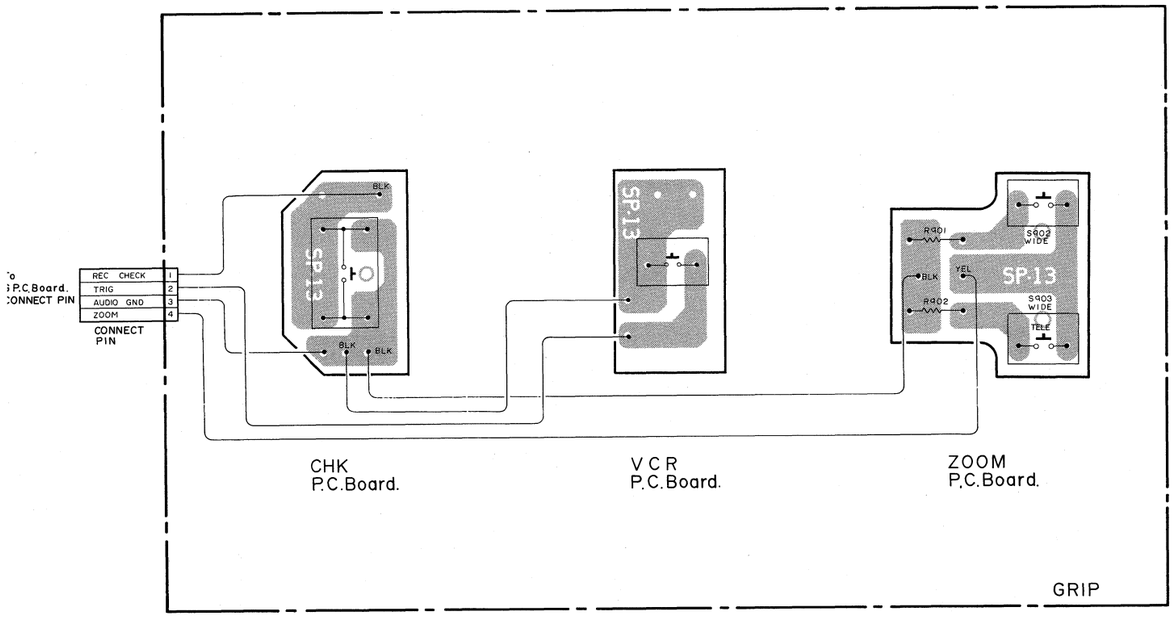
To Li Board PC601

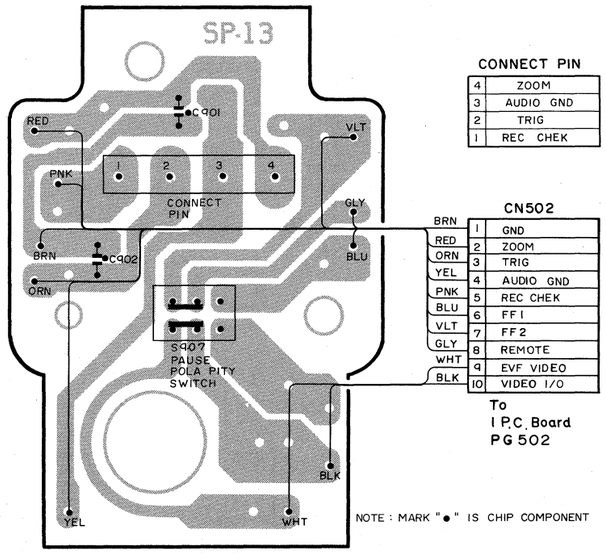
**PG606**

| | |
|---|---|
| 1 | VIDEO GND |
| 2 | VIDEO IN/OUT |
| 3 | GND |
| 4 | GND |
| 5 | 9V |
| 6 | 9V |
| 7 | VIDEO COMP. |
| 8 | VIDEO COMP. |
| 9 | GND |
| 10 | — |
| 11 | Y SIGNAL |
| 12 | R-Y SIGNAL |

To EP Board PM301

K-C2000E S58.5.6 (K)
MO P.C.B



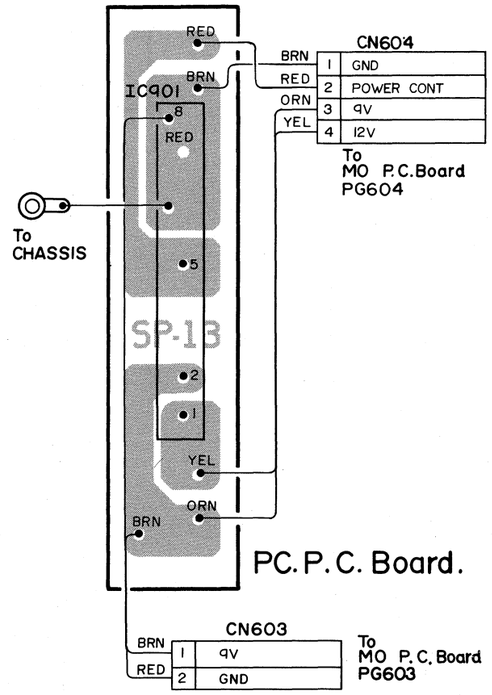

CONNECT PIN

| | |
|---|---|
| 4 | ZOOM |
| 3 | AUDIO GND |
| 2 | TRIG |
| 1 | REC CHEK |

CN502

| | | |
|---|---|---|
| BRN | 1 | GND |
| RED | 2 | ZOOM |
| ORN | 3 | TRIG |
| YEL | 4 | AUDIO GND |
| PNK | 5 | REC CHEK |
| BLU | 6 | FF1 |
| VLT | 7 | FF2 |
| GLY | 8 | REMOTE |
| WHT | 9 | EVF VIDEO |
| BLK | 10 | VIDEO I/O |

To
I P.C. Board
PG 502




CN604

| | | |
|---|---|---|
| BRN | 1 | GND |
| RED | 2 | POWER CONT |
| ORN | 3 | 9V |
| YEL | 4 | 12V |

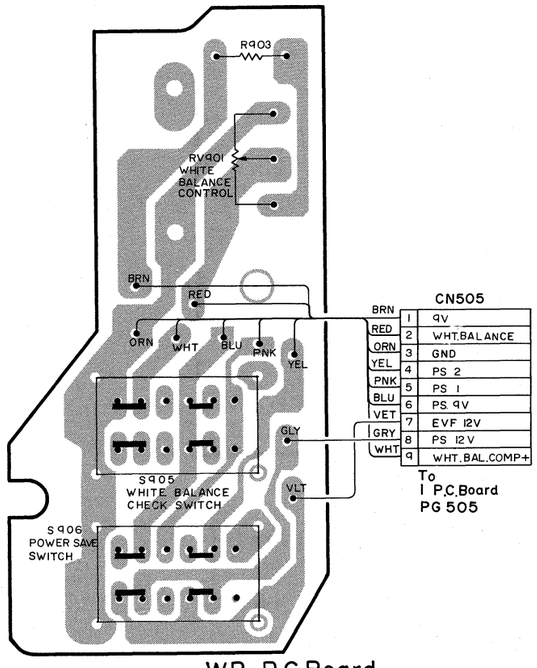
To
MO P.C.Board
PG604

PC. P. C. Board.

CN603

| | | |
|---|---|---|
| BRN | 1 | 9V |
| RED | 2 | GND |

To
MO P. C. Board
PG603

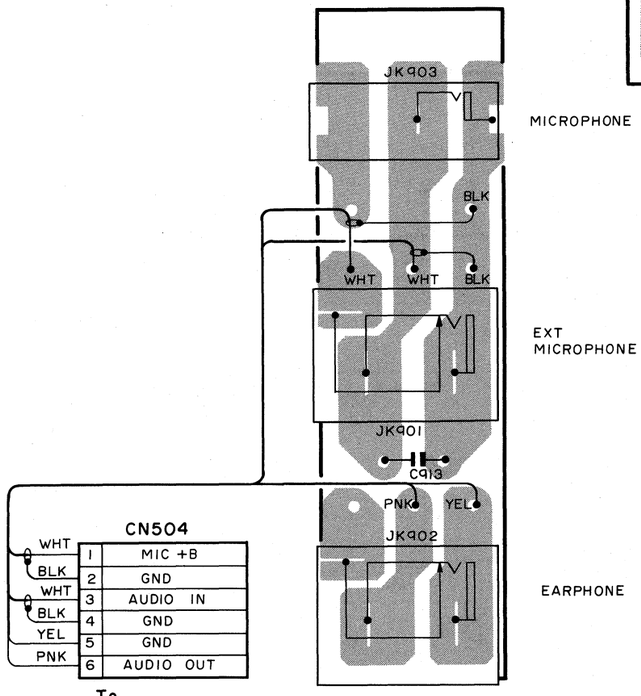



CN505

| | | |
|---|---|---|
| BRN | 1 | 9V |
| RED | 2 | WHT.BALANCE |
| ORN | 3 | GND |
| YEL | 4 | PS 2 |
| PNK | 5 | PS 1 |
| BLU | 6 | PS 9V |
| VET | 7 | EVF 12V |
| GRY | 8 | PS 12V |
| WHT | 9 | WHT.BAL.COMP+ |

To
I P.C.Board
PG 505

WB P.C.Board



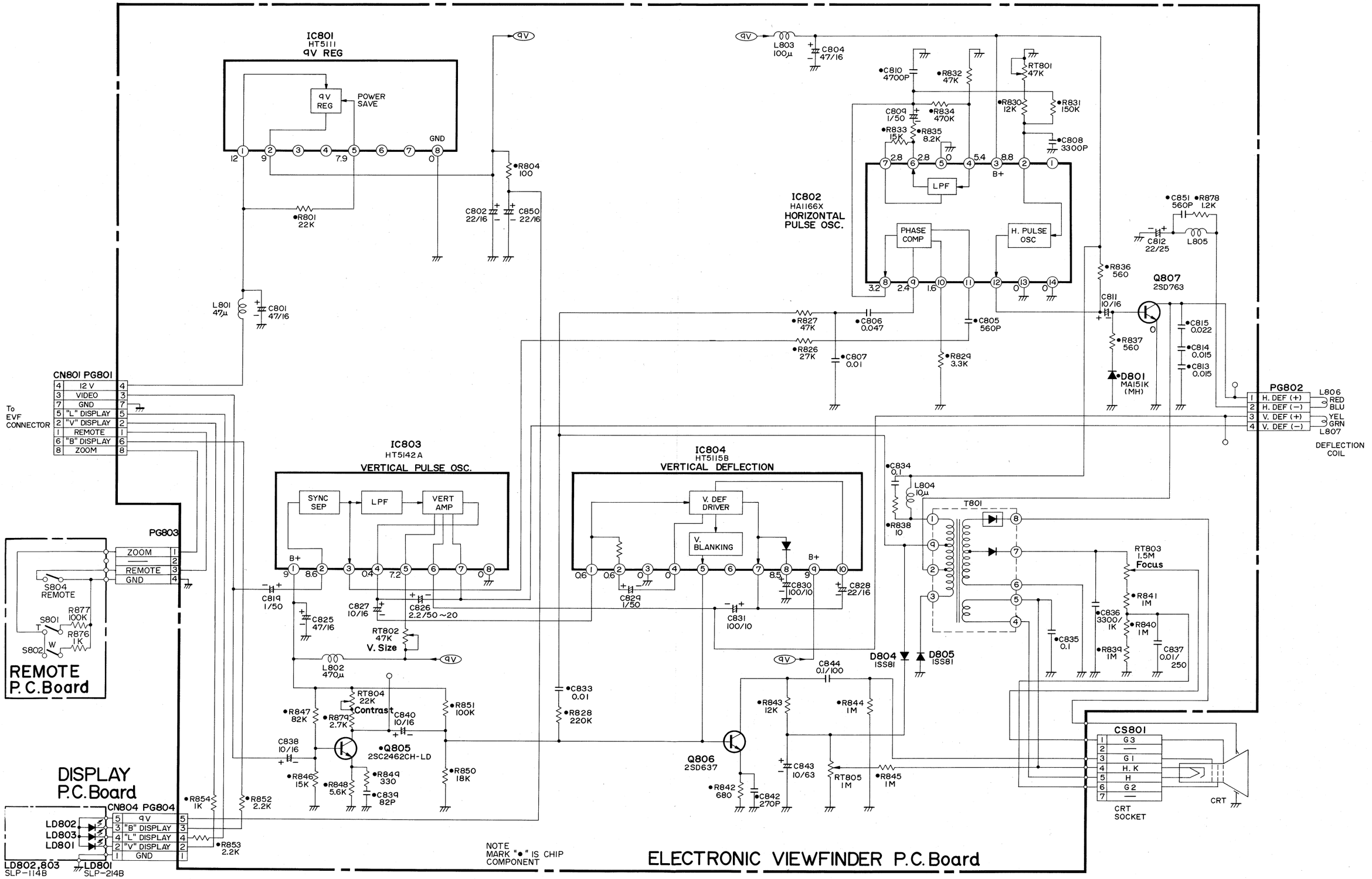

CN504

| | | |
|---|---|---|
| WHT | 1 | MIC +B |
| BLK | 2 | GND |
| WHT | 3 | AUDIO IN |
| BLK | 4 | GND |
| YEL | 5 | GND |
| PNK | 6 | AUDIO OUT |

To
I.P.C Board
PG504

JACK P.C.Board

## ELECTRONIC VIEWFINDER CIRCUIT DIAGRAM



## ELECTRONIC VIEWFINDER CIRCUIT BOARD

**IC801**

| 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
|---|---|---|---|---|---|---|---|
| 0 | — | — | — | 7.9 | — | 9 | 12 |

**IC802**

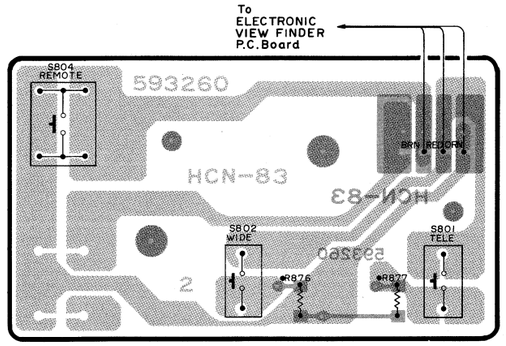
| 14 | 13 | 12 | 11 | 10 | 9 | 8 |
|---|---|---|---|---|---|---|
| 0 | 0 | — | — | 1.6 | 2.4 | 3.2 |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| — | — | 8.8 | 5.4 | 0 | 2.8 | 2.8 |

**IC803**

| | |
|---|---|
| 1 | 9 |
| 2 | 8.6 |
| 3 | — |
| 4 | 0.4 |
| 5 | 7.2 |
| 6 | — |
| 7 | — |
| 8 | 0 |

**IC804**

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|
| 0.6 | 0.6 | 0 | 0 | — | — | — | 8.5 | 9 | — |




NOTE : MARK "●" IS CHIP COMPONENT

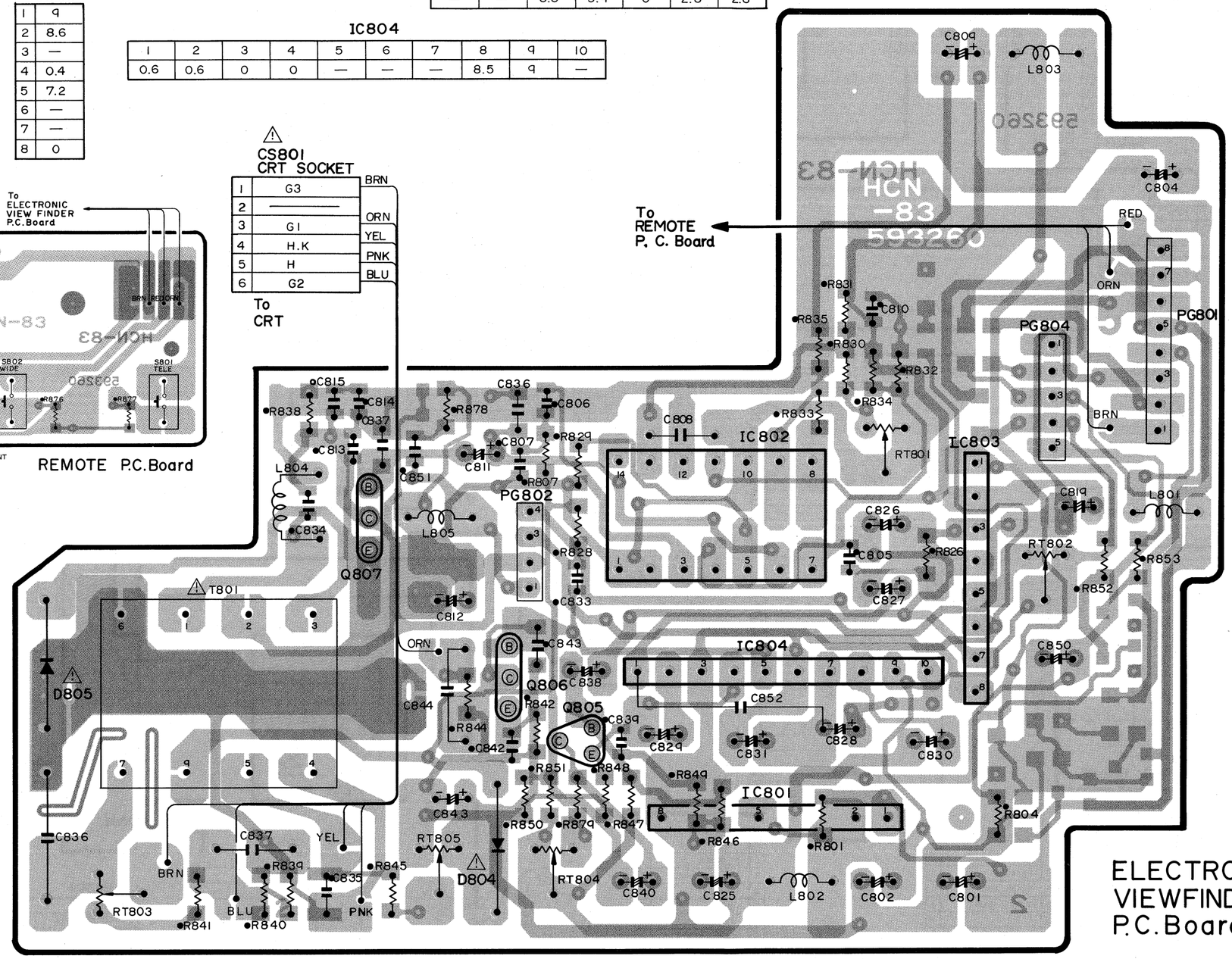
REMOTE P.C.Board

⚠ CS801 CRT SOCKET

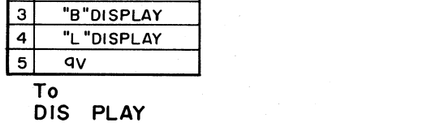
| | | |
|---|---|---|
| 1 | G3 | BRN |
| 2 | — | ORN |
| 3 | G1 | YEL |
| 4 | H.K | PNK |
| 5 | H | BLU |
| 6 | G2 | |

To CRT

To REMOTE P. C. Board




NOTE: MARK "●" IS CHIP COMPONENT




**CN804**

| | | |
|---|---|---|
| BRN | 1 | GND |
| RED | 2 | "V" DISPLAY |
| YEL | 3 | "B" DISPLAY |
| ORN | 4 | "L" DISPLAY |
| PNK | 5 | 9V |

To ELECTRONIC VIEWFINDER PG804

| PG801 | | CN801 |
|---|---|---|
| 1 | REMOTE | 1 |
| 2 | "V" DISPLAY | 2 |
| 3 | VIDEO | 3 |
| 4 | 12V | 4 |
| 5 | "L" DISPLAY | 5 |
| 6 | "B" DISPLAY | 6 |
| 7 | GND | 7 |
| 8 | ZOOM | 8 |

To EVF CONNECTOR

**PG804**

| | |
|---|---|
| 1 | GND |
| 2 | "V" DISPLAY |
| 3 | "B" DISPLAY |
| 4 | "L" DISPLAY |
| 5 | 9V |

To DIS PLAY P. C. Board CN804

ELECTRONIC VIEWFINDER P.C.Board.

**Q805**

| | |
|---|---|
| B | |
| C | |
| E | |

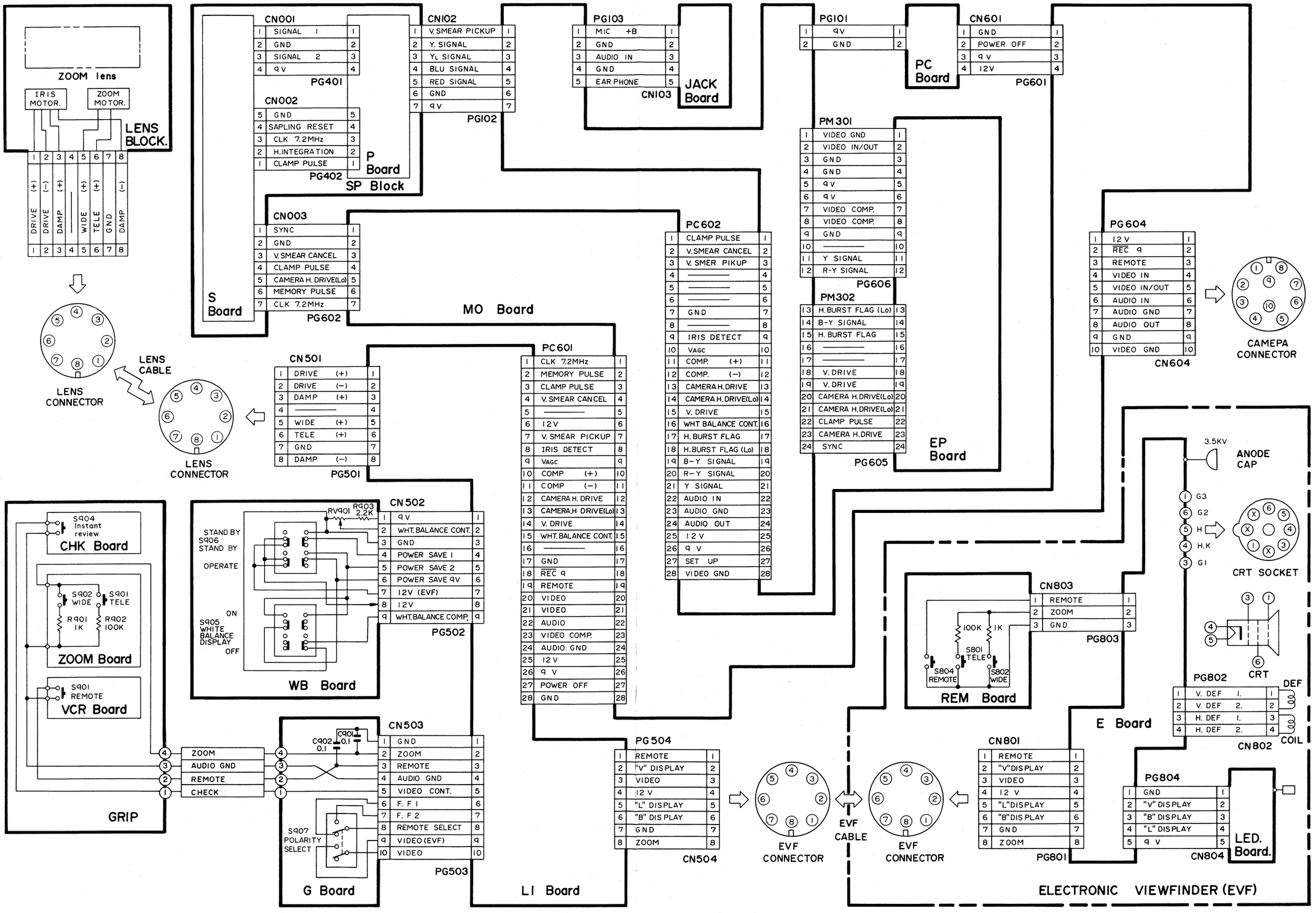
**Q806**

| | |
|---|---|
| B | |
| C | |
| E | |

**Q807**

| | |
|---|---|
| B | — |
| C | — |
| E | 0 |

## CIRCUIT BOARD CONNECTION DIAGRAM



# REPLACEMENT PARTS LIST

| SYMBOL-NO | P-NO | DESCRIPTION |
|---|---|---|
| | | CAPACITORS |
| C002-005 | 0256471 | TANTALUM ELECTROLYTIC 10MF 6.3V |
| C006 | 0256454 | TANTALUM ELECTROLYTIC 4.7MF 6.3V |
| C009-010 | 0256452 | TANTALUM ELECTROLYTIC 1MF 6.3V |
| C011 | 0256381 | TANTALUM ELECTROLYTIC 3.3MF 16V |
| C012 | 0256454 | TANTALUM ELECTROLYTIC 4.7MF 6.3V |
| C104-106 | 0256394 | TANTALUM ELECTROLYTIC 33MF 6.3V |
| C153 | 0256405 | TANTALUM ELECTROLYTIC 10MF 16V |
| C412 | 0256364 | TANTALUM ELECTROLYTIC 0.47MF,25V |
| C416-418 | 0256150 | ELECTROLYTIC 0.47UF 50V |
| C425 | 0256417 | TANTALUM ELECTROLYTIC 2.2MF 6.3V |
| C428 | 0256364 | TANTALUM ELECTROLYTIC 0.47MF,25V |
| C429 | 0256417 | TANTALUM ELECTROLYTIC 2.2MF 6.3V |
| C431 | 0256364 | TANTALUM ELECTROLYTIC 0.47MF,25V |
| | | RESISTORS |
| RT001 | 5007461 | SEMI VARIABLE RESISTOR |
| RT002 | 5007462 | SEMI VARIABLE RESISTOR |
| RT003-004 | 5007463 | SEMI VARIABLE 22KOHM |
| RT101-104 | 5007446 | SEMI VARIABLE RESISTOR 4.7KOHM |
| RT105 | 5007444 | SEMI VARIABLE 1KOHM |
| RT301 | 5007444 | SEMI VARIABLE 1KOHM |
| RT401 | 5007463 | SEMI VARIABLE 22KOHM |
| RT402-403 | 5007459 | SEMI VARIABLE 2.2KOHM |
| RT404-405 | 5007461 | SEMI VARIABLE RESISTOR |
| RT406 | 5007463 | SEMI VARIABLE 22KOHM |
| RT501 | 5007446 | SEMI VARIABLE RESISTOR 4.7KOHM |
| RT502 | 5007445 | SEMI VARIABLE 2.2KOHM |
| RT801 | 5007434 | SEMI VARIABLE 4.7KOHM |
| RT802 | 5007437 | SEMI VARIABLE 47KOHM |
| RT803 | 5007469 | VARIABLE 15MOHM |
| RT804 | 5007463 | SEMI VARIABLE 22KOHM |
| RT805 | 5007468 | VARIABLE 1MOHM |
| R001 | 0142825 | CHIP RESISTOR 33 OHM |
| R002 | 0142847 | CHIP RESISTOR 2.2KOHM |
| R003-004 | 0142831 | CHIP RESISTOR 100 OHM |
| R005 | 0142843 | CHIP RESISTOR 1K OHM |
| R006 | 0142853 | CHIP RESISTOR 6.8KOHM |
| R007 | 0142823 | CHIP RESISTOR 22 OHM |
| R008 | 0142847 | CHIP RESISTOR 2.2KOHM |
| R009 | 0142823 | CHIP RESISTOR 22 OHM |
| R010 | 0142831 | CHIP RESISTOR 100 OHM |
| R011 | 0142841 | CHIP RESISTOR 680 OHM |
| R012 | 0142835 | CHIP RESISTOR 220 OHM |
| R013 | 0142841 | CHIP RESISTOR 680 OHM |
| R014 | 0142867 | CHIP RESISTOR 100KOHM |
| R015 | 0142831 | CHIP RESISTOR 100 OHM |
| R016 | 0142835 | CHIP RESISTOR 220 OHM |
| R017-026 | 0142843 | CHIP RESISTOR 1K OHM |
| R027 | 0142855 | CHIP RESISTOR 10KOHM |
| R028 | 0142844 | CHIP RESISTOR 1.2KOHM |
| R029 | 0142843 | CHIP RESISTOR 1K OHM |
| R031 | 0142831 | CHIP RESISTOR 100 OHM |
| R032 | 0142858 | CHIP RESISTOR 18KOHM |
| R033 | 0142843 | CHIP RESISTOR 1K OHM |
| R036 | 0142843 | CHIP RESISTOR 1K OHM |
| R037 | 0142849 | CHIP RESISTOR 3.3KOHM |
| R038 | 0142857 | CHIP RESISTOR 15KOHM |
| R039 | 0142855 | CHIP RESISTOR 10KOHM |
| R040 | 0142867 | CHIP RESISTOR 100KOHM |
| R041-042 | 0142865 | CHIP RESISTOR 68KOHM |
| R043 | 0142841 | CHIP RESISTOR 680 OHM |
| R044 | 0142847 | CHIP RESISTOR 2.2KOHM |
| R045 | 0142867 | CHIP RESISTOR 100KOHM |
| R046 | 0142855 | CHIP RESISTOR 10KOHM |
| R047 | 0142839 | CHIP RESISTOR 470 OHM |
| R053-054 | 0142857 | CHIP RESISTOR 15KOHM |
| R101-102 | 0142840 | CHIP RESISTOR 560 OHM |
| R103 | 0142833 | CHIP RESISTOR 150 OHM |
| R104 | 0142843 | CHIP RESISTOR 1K OHM |
| R105-107 | 0142855 | CHIP RESISTOR 10KOHM |
| R108 | 0142849 | CHIP RESISTOR 3.3KOHM |
| R109 | 0142835 | CHIP RESISTOR 220 OHM |
| R111 | 0142857 | CHIP RESISTOR 15KOHM |
| R112 | 0142850 | CHIP RESISTOR 3.9KOHM |
| R113 | 0142851 | CHIP RESISTOR 4.7KOHM |
| R114 | 0142849 | CHIP RESISTOR 3.3KOHM |
| R115 | 0142856 | CHIP RESISTOR 12KOHM |
| R116-117 | 0142855 | CHIP RESISTOR 10KOHM |
| R118 | 0142882 | CHIP RESISTOR 0 OHM |
| R120 | 0142851 | CHIP RESISTOR 4.7KOHM |
| R121 | 0142839 | CHIP RESISTOR 470 OHM |
| R122 | 0142835 | CHIP RESISTOR 220 OHM |
| R123 | 0142841 | CHIP RESISTOR 680 OHM |
| R124 | 0142832 | CHIP RESISTOR 22 OHM |
| R125 | 0142843 | CHIP RESISTOR 1K OHM |
| R126 | 0142849 | CHIP RESISTOR 3.3KOHM |
| R127 | 0142853 | CHIP RESISTOR 6.8KOHM |
| R128 | 0142844 | CHIP RESISTOR 1.2KOHM |
| R129 | 0142867 | CHIP RESISTOR 100KOHM |
| R130-131 | 0142835 | CHIP RESISTOR 220 OHM |
| R132 | 0142851 | CHIP RESISTOR 4.7KOHM |
| R134 | 0142845 | CHIP RESISTOR 1.5KOHM |

| SYMBOL-NO | P-NO | DESCRIPTION |
|---|---|---|
| | | RESISTORS |
| R135 | 0142857 | CHIP RESISTOR 15KOHM |
| R136-137 | 0142842 | CHIP RESISTOR 820 OHM |
| R138 | 0142839 | CHIP RESISTOR 470 OHM |
| R139 | 0142855 | CHIP RESISTOR 10KOHM |
| R140 | 0142857 | CHIP RESISTOR 15KOHM |
| R141-142 | 0142849 | CHIP RESISTOR 3.3KOHM |
| R143 | 0142859 | CHIP RESISTOR 22KOHM |
| R145 | 0142845 | CHIP RESISTOR 1.5KOHM |
| R146 | 0142849 | CHIP RESISTOR 3.3KOHM |
| R147 | 0142852 | CHIP RESISTOR 5.6KOHM |
| R148 | 0142841 | CHIP RESISTOR 680 OHM |
| R149 | 0142848 | CHIP RESISTOR 2.7KOHM |
| R150 | 0142845 | CHIP RESISTOR 1.5KOHM |
| R151 | 0142852 | CHIP RESISTOR 5.6KOHM |
| R152 | 0142837 | CHIP RESISTOR 330 OHM |
| R153 | 0142854 | CHIP RESISTOR 8.2KOHM |
| R154 | 0142847 | CHIP RESISTOR 2.2KOHM |
| R155 | 0142831 | CHIP RESISTOR 100 OHM |
| R156 | 0142850 | CHIP RESISTOR 3.9KOHM |
| R157 | 0142856 | CHIP RESISTOR 12KOHM |
| R158-159 | 0142838 | CHIP RESISTOR 390 OHM |
| R160 | 0142848 | CHIP RESISTOR 2.7KOHM |
| R161 | 0142846 | CHIP RESISTOR 1.8KOHM |
| R162 | 0142849 | CHIP RESISTOR 3.3KOHM |
| R163 | 0142848 | CHIP RESISTOR 2.7KOHM |
| R164 | 0142852 | CHIP RESISTOR 5.6KOHM |
| R165 | 0142819 | CHIP RESISTOR 10 OHM |
| R166-167 | 0142852 | CHIP RESISTOR 5.6KOHM |
| R168 | 0142879 | CHIP RESISTOR 1MOHM |
| R169 | 0142863 | CHIP RESISTOR 47KOHM |
| R170 | 0142852 | CHIP RESISTOR 5.6KOHM |
| R171 | 0142871 | CHIP RESISTOR 220KOHM |
| R172-173 | 0142850 | CHIP RESISTOR 3.9KOHM |
| R174 | 0142852 | CHIP RESISTOR 5.6KOHM |
| R175 | 0142853 | CHIP RESISTOR 6.8KOHM |
| R176 | 0142855 | CHIP RESISTOR 10KOHM |
| R177 | 0142850 | CHIP RESISTOR 3.9KOHM |
| R178 | 0142871 | CHIP RESISTOR 220KOHM |
| R179 | 0142852 | CHIP RESISTOR 5.6KOHM |
| R180 | 0142849 | CHIP RESISTOR 3.3KOHM |
| R181-182 | 0142867 | CHIP RESISTOR 100KOHM |
| R183 | 0142855 | CHIP RESISTOR 10KOHM |
| R184 | 0142849 | CHIP RESISTOR 3.3KOHM |
| R185 | 0142853 | CHIP RESISTOR 6.8KOHM |
| R186 | 0142854 | CHIP RESISTOR 8.2KOHM |
| R188-189 | 0142867 | CHIP RESISTOR 100KOHM |
| R190 | 0142861 | CHIP RESISTOR 33KOHM |
| R191 | 0142859 | CHIP RESISTOR 22KOHM |
| R192-193 | 0142855 | CHIP RESISTOR 10KOHM |
| R194 | 0142859 | CHIP RESISTOR 22KOHM |
| R195 | 0142855 | CHIP RESISTOR 10KOHM |
| R196 | 0142831 | CHIP RESISTOR 100 OHM |
| R197 | 0142868 | CHIP RESISTOR 150KOHM |
| R198 | 0142859 | CHIP RESISTOR 22KOHM |
| R199 | 0142858 | CHIP RESISTOR 18KOHM |
| R200 | 0142859 | CHIP RESISTOR 22KOHM |
| R201 | 0142847 | CHIP RESISTOR 2.2KOHM |
| R202 | 0142853 | CHIP RESISTOR 6.8KOHM |
| R203-204 | 0142847 | CHIP RESISTOR 2.2KOHM |
| R205 | 0142846 | CHIP RESISTOR 1.8KOHM |
| R206 | 0142851 | CHIP RESISTOR 4.7KOHM |
| R210 | 0142855 | CHIP RESISTOR 10KOHM |
| R301 | 0142852 | CHIP RESISTOR 5.6KOHM |
| R302 | 0142843 | CHIP RESISTOR 1K OHM |
| R303-304 | 0142830 | CHIP RESISTOR 82 OHM |
| R305 | 0142823 | CHIP RESISTOR 22 OHM |
| R306 | 0142827 | CHIP RESISTOR 47 OHM |
| R307 | 0142831 | CHIP RESISTOR 100 OHM |
| R308 | 0142855 | CHIP RESISTOR 10KOHM |
| R309 | 0142850 | CHIP RESISTOR 3.9KOHM |
| R310 | 0142843 | CHIP RESISTOR 1K OHM |
| R311 | 0142851 | CHIP RESISTOR 4.7KOHM |
| R312 | 0142882 | CHIP RESISTOR 0 OHM |
| R313-314 | 0142843 | CHIP RESISTOR 1K OHM |
| R315 | 0142851 | CHIP RESISTOR 4.7KOHM |
| R316 | 0142847 | CHIP RESISTOR 2.2KOHM |
| R318 | 0142855 | CHIP RESISTOR 10KOHM |
| R319 | 0142847 | CHIP RESISTOR 2.2KOHM |
| R321 | 0142854 | CHIP RESISTOR 8.2KOHM |
| R322 | 0142843 | CHIP RESISTOR 1K OHM |
| R323 | 0142852 | CHIP RESISTOR 5.6KOHM |
| R324 | 0142837 | CHIP RESISTOR 330 OHM |
| R325 | 0142845 | CHIP RESISTOR 1.5KOHM |
| R326 | 0142838 | CHIP RESISTOR 390 OHM |
| R327-328 | 0142879 | CHIP RESISTOR 1MOHM |
| R329 | 0142855 | CHIP RESISTOR 10KOHM |
| R330 | 0142867 | CHIP RESISTOR 100KOHM |
| R331-332 | 0142843 | CHIP RESISTOR 1K OHM |
| R333 | 0142838 | CHIP RESISTOR 390 OHM |
| R334 | 0142867 | CHIP RESISTOR 100KOHM |
| R335 | 0142843 | CHIP RESISTOR 1K OHM |

| SYMBOL-NO | P-NO | DESCRIPTION |
|---|---|---|
| | | RESISTORS |
| R336 | 0142882 | CHIP RESISTOR 0 OHM |
| R401 | 0142845 | CHIP RESISTOR 1.5KOHM |
| R403 | 0142854 | CHIP RESISTOR 8.2KOHM |
| R404 | 0142845 | CHIP RESISTOR 1.5KOHM |
| R405 | 0142832 | CHIP RESISTOR 22 OHM |
| R406-407 | 0142845 | CHIP RESISTOR 1.5KOHM |
| R408 | 0142854 | CHIP RESISTOR 8.2KOHM |
| R411 | 0142846 | CHIP RESISTOR 1.8KOHM |
| R412 | 0142861 | CHIP RESISTOR 33KOHM |
| R413 | 0142843 | CHIP RESISTOR 1K OHM |
| R414 | 0142851 | CHIP RESISTOR 4.7KOHM |
| R415 | 0142843 | CHIP RESISTOR 1K OHM |
| R416 | 0142853 | CHIP RESISTOR 6.8KOHM |
| R418 | 0142861 | CHIP RESISTOR 33KOHM |
| R419 | 0142843 | CHIP RESISTOR 1K OHM |
| R420 | 0142851 | CHIP RESISTOR 4.7KOHM |
| R421 | 0142846 | CHIP RESISTOR 1.8KOHM |
| R422 | 0142867 | CHIP RESISTOR 100KOHM |
| R425 | 0142855 | CHIP RESISTOR 10KOHM |
| R426 | 0142843 | CHIP RESISTOR 1K OHM |
| R432 | 0142851 | CHIP RESISTOR 4.7KOHM |
| R433 | 0142859 | CHIP RESISTOR 22KOHM |
| R435-436 | 0142858 | CHIP RESISTOR 18KOHM |
| R437-438 | 0142855 | CHIP RESISTOR 10KOHM |
| R440 | 0142859 | CHIP RESISTOR 22KOHM |
| R441 | 0142855 | CHIP RESISTOR 10KOHM |
| R442-447 | 0142849 | CHIP RESISTOR 3.3KOHM |
| R448-449 | 0142840 | CHIP RESISTOR 560 OHM |
| R450 | 0142856 | CHIP RESISTOR 12KOHM |
| R451 | 0142852 | CHIP RESISTOR 5.6KOHM |
| R452 | 0142843 | CHIP RESISTOR 1K OHM |
| R453 | 0142867 | CHIP RESISTOR 100KOHM |
| R454 | 0142854 | CHIP RESISTOR 8.2KOHM |
| R455 | 0142855 | CHIP RESISTOR 10KOHM |
| R461 | 0142859 | CHIP RESISTOR 22KOHM |
| R462 | 0142855 | CHIP RESISTOR 10KOHM |
| R463 | 0142841 | CHIP RESISTOR 680 OHM |
| R464-465 | 0142843 | CHIP RESISTOR 1K OHM |
| R466 | 0142850 | CHIP RESISTOR 3.9KOHM |
| R470 | 0142849 | CHIP RESISTOR 3.3KOHM |
| R471 | 0142823 | CHIP RESISTOR 22 OHM |
| R501 | 0142831 | CHIP RESISTOR 100 OHM |
| R502 | 0142847 | CHIP RESISTOR 2.2KOHM |
| R503-506 | 0142849 | CHIP RESISTOR 3.3KOHM |
| R507 | 0142845 | CHIP RESISTOR 1.5KOHM |
| R508 | 0142850 | CHIP RESISTOR 3.9KOHM |
| R509 | 0142845 | CHIP RESISTOR 1.5KOHM |
| R510 | 0142850 | CHIP RESISTOR 3.9KOHM |
| R513 | 0142855 | CHIP RESISTOR 10KOHM |
| R514 | 0142852 | CHIP RESISTOR 5.6KOHM |
| R515 | 0142836 | CHIP RESISTOR 270 OHM |
| R522 | 0142849 | CHIP RESISTOR 3.3KOHM |
| R523 | 0142852 | CHIP RESISTOR 5.6KOHM |
| R524 | 0142856 | CHIP RESISTOR 12KOHM |
| R525 | 0142857 | CHIP RESISTOR 15KOHM |
| R526-527 | 0142829 | CHIP RESISTOR 68 OHM |
| R528-530 | 0142855 | CHIP RESISTOR 10KOHM |
| R531 | 0142861 | CHIP RESISTOR 33KOHM |
| R532 | 0142859 | CHIP RESISTOR 22KOHM |
| R533 | 0142843 | CHIP RESISTOR 1K OHM |
| R534 | 0142865 | CHIP RESISTOR 68KOHM |
| R535 | 0142859 | CHIP RESISTOR 22KOHM |
| R536 | 0142836 | CHIP RESISTOR 270 OHM |
| R537 | 0142844 | CHIP RESISTOR 1.2KOHM |
| R545 | 0142852 | CHIP RESISTOR 5.6KOHM |
| R546-547 | 0142843 | CHIP RESISTOR 1K OHM |
| R801 | 0127951 | CHIP RESISTOR 22KOHM+-5% |
| R804 | 0127923 | CHIP RESISTOR 1000HM+-5% |
| R826 | 0127952 | CHIP RESISTOR 27K OHM +-5% |
| R827 | 0127955 | CHIP RESISTOR 47KOHM+-5% |
| R828 | 0127963 | CHIP RESISTOR 220KOHM+-5% |
| R829 | 0127941 | CHIP RESISTOR 3.3KOHM+-5% |
| R830 | 0127948 | CHIP RESISTOR 12KOHM+-5% |
| R831 | 0127961 | CHIP RESISTOR 150K OHM +-5% |
| R832 | 0127955 | CHIP RESISTOR 47KOHM+-5% |
| R833 | 0127949 | CHIP RESISTOR 15KOHM+-5% |
| R834 | 0127967 | CHIP RESISTOR 470K OHM +-5% |
| R835 | 0127946 | CHIP RESISTOR 8.2KOHM+-5% |
| R836-837 | 0127932 | CHIP RESISTOR 5600HM+-5% |
| R838 | 0127913 | CHIP RESISTOR 15 OHM +-5% |
| R839-841 | 0127971 | CHIP RESISTOR 1MOHM+-5% |
| R842 | 0127933 | CHIP RESISTOR 6800HM+-5% |
| R843 | 0127948 | CHIP RESISTOR 12KOHM+-5% |
| R844-845 | 0127971 | CHIP RESISTOR 1MOHM+-5% |
| R846 | 0127949 | CHIP RESISTOR 15KOHM+-5% |
| R847 | 0127958 | CHIP RESISTOR 82KOHM+-5% |
| R849 | 0127929 | CHIP RESISTOR 3300HM+-5% |
| R850 | 0127950 | CHIP RESISTOR 18KOHM+-5% |
| R851 | 0127959 | CHIP RESISTOR 100KOHM+-5% |
| R852-853 | 0127939 | CHIP RESISTOR 2.2K OHM +-5% |
| R854 | 0127935 | CHIP RESISTOR 1K OHM +-5% |

| SYMBOL-NO | P-NO | DESCRIPTION |
|---|---|---|
| | | RESISTORS |
| R876 | 0127935 | CHIP RESISTOR 1K OHM +-5% |
| R877 | 0127959 | CHIP RESISTOR 100K OHM +-5% |
| R878 | 0127936 | CHIP RESISTOR 1.2K OHM +-5% |
| R879 | 0127940 | CHIP RESISTOR 2.7K OHM +-5% |
| | | SEMI-CONDUCTORS |
| C001 | 0247007 | CERAMIC CHIP 0.01UF+-20% |
| C007 | 0247020 | CERAMIC CHIP 10PF +-0.5PF |
| C008 | 0247054 | CERAMIC CHIP 1000PF+-10% |
| C013 | 0247069 | CERAMIC CHIP 0.1MF+80-20% |
| C014 | 0247007 | CERAMIC CHIP 0.01UF+-20% |
| C015 | 0256454 | TANTALUM ELECTROLYTIC 4.7MF 6.3V |
| C016 | 0247007 | CERAMIC CHIP 0.01UF+-20% |
| C019 | 0247020 | CERAMIC CHIP 10PF +-0.5PF |
| C020 | 0247007 | CERAMIC CHIP 0.01UF+-20% |
| C021 | 0247054 | CERAMIC CHIP 1000PF+-10% |
| C022 | 0247027 | CERAMIC CHIP 47PF+-5% |
| C023 | 0247022 | CERAMIC CHIP 15PF+-5% |
| C024-025 | 0247025 | CERAMIC CHIP 33PF+-5% |
| C026 | 0247022 | CERAMIC CHIP 15PF+-5% |
| C027 | 0247069 | CERAMIC CHIP 0.1MF+80-20% |
| C028 | 0247007 | CERAMIC CHIP 0.01UF+-20% |
| C101-103 | 0249988 | CERAMIC CAPACITOR 0.1MF+-20% |
| C107-108 | 0247006 | CERAMIC CHIP 0.01MF+80-20% |
| C109 | 0247003 | CERAMIC CHIP 1000PF+-20% |
| C110-112 | 0247006 | CERAMIC CHIP 0.01MF+80-20% |
| C122 | 0247006 | CERAMIC CHIP 0.01MF+80-20% |
| C124 | 0247056 | CERAMIC CHIP 1500PF+-10% |
| C125 | 0247067 | CERAMIC CHIP 0.033MF+-20% |
| C128 | 0247035 | CERAMIC CHIP 220PF+-5% |
| C129 | 0247031 | CERAMIC CHIP 100PF+-5% |
| C130 | 0247006 | CERAMIC CHIP 0.01MF+80-20% |
| C131 | 0247035 | CERAMIC CHIP 220PF+-5% |
| C132 | 0247006 | CERAMIC CHIP 0.01MF+80-20% |
| C133 | 0247035 | CERAMIC CHIP 220PF+-5% |
| C134 | 0247029 | CERAMIC CHIP 68PF+-5% |
| C135 | 0247025 | CERAMIC CHIP 33PF+-5% |
| C136 | 0247029 | CERAMIC CHIP 68PF+-5% |
| C137 | 0247025 | CERAMIC CHIP 33PF+-5% |
| C138 | 0247069 | CERAMIC CHIP 0.1MF+80-20% |
| C142-143 | 0247006 | CERAMIC CHIP 0.01MF+80-20% |
| C144-145 | 0249988 | CERAMIC CAPACITOR 0.1MF+-20% |
| C301 | 0247007 | CERAMIC CHIP 0.01UF+-20% |
| C303 | 0247007 | CERAMIC CHIP 0.01UF+-20% |
| C304 | 0249988 | CERAMIC CAPACITOR 0.1MF+-20% |
| C305-306 | 0247007 | CERAMIC CHIP 0.01UF+-20% |

| SYMBOL-NO | P-NO | DESCRIPTION |
|---|---|---|
| C309 | 0247020 | CERAMIC CHIP 10PF +-0.5PF |
| C310 | 0247014 | CERAMIC CHIP 4PF +-0.25PF |
| C311 | 0247007 | CERAMIC CHIP 0.01UF+-20% |
| C313 | 0247007 | CERAMIC CHIP 0.01UF+-20% |
| C315 | 0247007 | CERAMIC CHIP 0.01UF+-20% |
| C318 | 0247021 | CERAMIC CHIP 12PF+-5% |
| C319-321 | 0247007 | CERAMIC CHIP 0.01UF+-20% |
| C323-325 | 0247007 | CERAMIC CHIP 0.01UF+-20% |
| C326 | 0247054 | CERAMIC CHIP 1000PF+-10% |
| C327 | 0247024 | CERAMIC CHIP 27PF+-5% |
| C328-330 | 0247007 | CERAMIC CHIP 0.01UF+-20% |
| C401 | 0247007 | CERAMIC CHIP 0.01UF+-20% |
| C403 | 0247028 | CERAMIC CHIP 56PF+-5% |
| C405 | 0247028 | CERAMIC CHIP 56PF+-5% |
| C406 | 0247017 | CERAMIC CHIP 7PF +-0.25PF |
| C407 | 0247028 | CERAMIC CHIP 56PF+-5% |
| C408 | 0247017 | CERAMIC CHIP 7PF +-0.25PF |
| C409-410 | 0247028 | CERAMIC CHIP 56PF+-5% |
| C411 | 0247017 | CERAMIC CHIP 7PF +-0.25PF |
| C413 | 0247007 | CERAMIC CHIP 0.01UF+-20% |
| C419-420 | 0247023 | CERAMIC CHIP 22PF+-5% |
| C422 | 0247054 | CERAMIC CHIP 1000PF+-10% |
| C426 | 0247028 | CERAMIC CHIP 56PF+-5% |
| C427 | 0247023 | CERAMIC CHIP 22PF+-5% |
| C501-502 | 0247067 | CERAMIC CHIP 0.033MF+-20% |
| C508-509 | 0247007 | CERAMIC CHIP 0.01UF+-20% |
| C511 | 0247007 | CERAMIC CHIP 0.01UF+-20% |
| C513 | 0247054 | CERAMIC CHIP 1000PF+-10% |
| C519 | 0247007 | CERAMIC CHIP 0.01UF+-20% |
| C520 | 0249988 | CERAMIC CAPACITOR 0.1MF+-20% |
| C522 | 0247007 | CERAMIC CHIP 0.01UF+-20% |
| C531 | 0247015 | CERAMIC CHIP 5PF+-0.25PF |
| C805 | 0247040 | CERAMIC CHIP 560PF+-5% |
| C806 | 0247067 | CERAMIC CHIP 0.033MF+-20% |
| C807 | 0247007 | CERAMIC CHIP 0.01UF+-20% |
| C810 | 0247061 | CERAMIC CHIP 4700PF+-10% |
| C813-814 | 0247008 | CERAMIC CHIP 0.015UF+-20% |
| C815 | 0247065 | CERAMIC CHIP 0.022MF+-10% |
| C833 | 0247007 | CERAMIC CHIP 0.01UF+-20% |
| C834 | 0247010 | CERAMIC CHIP 0.022UF+-20% |
| C835 | 0247088 | CERAMIC CHIP 0.001MF+-20% |
| C839 | 0247030 | CERAMIC CHIP 82PF+-5% |
| C842 | 0247036 | CERAMIC CHIP 270PF+-5% |
| C851 | 0247040 | CERAMIC CHIP 560PF+-5% |
| D001 | 5331031 | DIODE 1SV68-01 |
| D101-102 | 5331601 | DIODE 1SS99 |

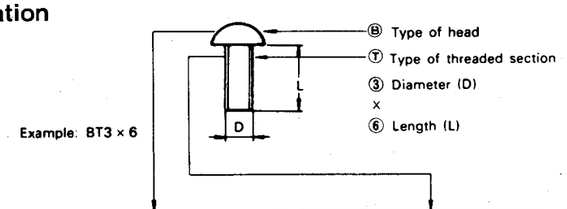
| SYMBOL-NO | P-NO | DESCRIPTION |
|---|---|---|
| | | SEMI-CONDUCTORS |
| D103 | 5329321 | MICRO PACKAGE DIODE MA151K |
| D104 | 5330714 | DIODE HZ4B |
| D105 | 5329321 | MICRO PACKAGE DIODE MA151K |
| D301-302 | 5329321 | MICRO PACKAGE DIODE MA151K |
| D304 | 5331031 | DIODE 1SV68-01 |
| D501 | 5331264 | ZENER DIODE HZ7-B3L |
| D502-503 | 5329303 | MICRO PACKAGE DIODE MA152WK |
| D601 | 5330101 | RECTIFIER SILICON V06C 15K |
| D801 | 5329321 | MICRO PACKAGE DIODE MA151K |
| D804-805 | 5331001 | DIODE 1SS81 |
| IC001-002 | 5376241 | IC HT5201 |
| IC003 | 5369781 | IC HE98223 |
| IC004 | 5355951 | IC HD44051 |
| IC101 | 5352751 | IC HA11731NP |
| IC102 | 5368281 | IC HA11732 |
| IC103 | 5376381 | IC HT5140 |
| IC104 | 5376391 | IC HT5141 |
| IC301 | 5368291 | IC HD440072FP |
| IC302 | 5352731 | IC HA11720MP |
| IC303 | 5369501 | IC MPD4069UBG |
| IC401-402 | 5376312 | IC HT5136A |
| IC403 | 5376324 | IC HT5137C |
| IC404-405 | 5376331 | IC HT5138 |
| IC406-408 | 5376341 | IC HT5139 |
| IC409 | 5355961 | IC HD44052 |
| IC410 | 5376602 | IC HT5143A |
| IC501-502 | 5365732 | IC HA19203MP |
| IC503 | 5365721 | IC HD44040 |
| IC504 | 5375441 | IC HT5104 |
| IC505 | 5376301 | IC HT5135 |
| IC506 | 5376291 | IC HT5134 |
| IC507 | 5376271 | IC HT5132 |
| IC508 | 5375451 | IC HT5105 |
| IC509 | 5376282 | IC HT5133 |
| IC510 | 5375463 | IC HT5106B |
| IC511 | 5376261 | IC HT5131 |
| IC801 | 5375592 | IC HT5111A |
| IC802 | 5351302 | IC HA1166 |
| IC803 | 5376411 | IC HT5142 |
| IC804 | 5375952 | IC HT5115A |
| IC901 | 5375592 | IC HT5111A |
| Q001 | 5329201 | MICRO PACKAGE TRANSISTOR 2SC2618 |
| Q002 | 5329192 | MICRO PACKAGE TRANSISTOR 2SC2462D |
| Q003-004 | 5329251 | MICRO PACKAGE TRANSISTOR 2SA1122CD |
| Q005-006 | 5329192 | MICRO PACKAGE TRANSISTOR 2SC2462D |
| Q101-103 | 5329221 | MICRO PACKAGE TRANSISTOR 2SC2620 |
| Q104-105 | 5329251 | MICRO PACKAGE TRANSISTOR 2SA1122CD |
| Q106 | 5329192 | MICRO PACKAGE TRANSISTOR 2SC2462D |
| Q107-108 | 5329251 | MICRO PACKAGE TRANSISTOR 2SA1122CD |
| Q109 | 5329192 | MICRO PACKAGE TRANSISTOR 2SC2462D |
| Q110-111 | 5329251 | MICRO PACKAGE TRANSISTOR 2SA1122CD |
| Q112 | 5329221 | MICRO PACKAGE TRANSISTOR 2SC2620 |
| Q113-117 | 5329192 | MICRO PACKAGE TRANSISTOR 2SC2462D |
| Q118 | 5329251 | MICRO PACKAGE TRANSISTOR 2SA1122CD |
| Q119-120 | 5329272 | MICRO PACKAGE TRANSISTOR FET-K5 |
| Q121 | 5329191 | MICRO PACKAGE TRANSISTOR 2SC2462 |
| Q122-125 | 5329192 | MICRO PACKAGE TRANSISTOR 2SC2462D |
| Q129-130 | 5329251 | MICRO PACKAGE TRANSISTOR 2SA1122CD |
| Q301 | 5329201 | MICRO PACKAGE TRANSISTOR 2SC2618 |
| Q302 | 5329192 | MICRO PACKAGE TRANSISTOR 2SC2462D |
| Q303-305 | 5329221 | MICRO PACKAGE TRANSISTOR 2SC2620 |
| Q401-406 | 5328251 | MICRO PACKAGE TRANSISTOR 2SA1122-CD |
| Q411 | 5328192 | MICRO PACKAGE TRANSISTOR 2SC2462-LD |
| Q412 | 5329201 | MICRO PACKAGE TRANSISTOR 2SC2618 |
| Q501-502 | 5329192 | MICRO PACKAGE TRANSISTOR 2SC2462D |
| Q503 | 5329251 | MICRO PACKAGE TRANSISTOR 2SA1122CD |
| Q510 | 5328221 | MICRO PACKAGE TRANSISTOR 2SC2620-QC |
| Q805 | 5329241 | MICRO PACKAGE TRANSISTOR 2SC2463 |
| Q806 | 5322461 | TRANSISTOR 2SD637R |
| Q807 | 5322941 | TRANSISTOR 2SD763 |
| ZD001 | 5331263 | ZENNER DIODE HZ7-B3L |
| ZD301 | 5331263 | ZENNER DIODE HZ7-B3L |
| | | MISCELLANEOUS |
| CE301 | 5780831 | CRYSTAL 4.4MHZ |
| CP101 | 5162204 | DELAY LINE |
| CP102 | 5162205 | DELAY LINE |
| CS801 | 5659563 | SOCKET |
| DL101 | 5162154 | DELAY LINE |
| DL301 | 5785271 | DELAY LINE |
| DL401 | 5162153 | DELAY LINE |
| JK901-902 | 5670464 | MOULD JACK - 3.5MMD |
| JK903 | 5672021 | JACK-2.5MMD |
| L805 | 5270571 | COIL |
| RV901 | 5008283 | SEMI VARIABLE 10KOHM |
| S801-802 | 5633671 | PUSH SWITCH |
| S804 | 5633911 | SWITCH |
| S901-903 | 5633671 | PUSH SWITCH |
| S904 | 5633851 | PUSH SWITCH |
| S905-906 | 5623392 | SLIDE SWITCH |
| S907 | 5623841 | SLIDE SWITCH |

| SYMBOL-NO | P-NO | DESCRIPTION |
|---|---|---|
| | | MISCELLANEOUS |
| T801 | 5270551 | TRANSFORMER |
| X301 | 5780821 | CRYSTAL 17.7MHZ |
| | | FOR FINAL ASSEMBLY |
| 1 | 5899505 | EVF CABLE |
| 2 | 6109416 | SIDE CASE (L) |
| 3 | 6020044 | SIDE CASE (R) |
| 4 | 7781582 | FALT SCREW-3MMDX10MM(BLACK) |
| 5 | 6109435 | TOP COVER |
| 6 | 6862636 | SWITCH PANEL |
| 7 | 6291291 | KNOB |
| 8 | 7782131 | SPECIAL SCREW |
| 9 | 6690581 | SWITCH COVER |
| 10 | 7374474 | ACCESSORY SHOE |
| 11 | 6535153 | SPRING |
| 12 | 7547833 | SCREW |
| 13 | 8721108 | SCREW (2X8) |
| 14 | 5421792 | MICROPHONE |
| 15 | 7084781 | SHOULDER |
| 16 | 6672151 | GUIDE |
| 17 | 6866681 | COVER |
| 18 | 6866672 | PLATE |
| 19 | 8721404 | FLAT SCREW 3MMD X 4MM |
| 20 | 8699308 | BT BIND SCREW-2.6MMDX8MM(BLACK) |
| 21 | 8724410 | FELT SCREW-3MMDX10MM(BLACK) |
| 22 | 6973752 | FRAME |
| 23 | 6973764 | REAR FRAME |
| 24 | 6106003 | BOTTOM COVER |
| 25 | 7378621 | PCB BRACKET |
| 26 | 6690572 | JACK METAL |
| 27 | 6959711 | ZOOM LENS |
| 28 | 5880981 | CABLE |
| 29 | 5899314 | LENS CONNECTOR |
| 30 | 5899305 | EVF CONNECTOR |
| 31 | 8741405 | SCREW - 3MMD X 5MM BIND |
| 32 | 8721406 | FLAT SCREW-3MMDX6MM |
| 33 | 8691408 | BIND TAPPING SCREW-3MMDX8MM (BLACK) |
| 34 | 5720174 | FUSE 630MA |
| 35 | 6871251 | CRIP ASSEMBLY |
| 36 | 5998192 | M PCB ASSEMBLY |
| 37 | 5998191 | LI PCB ASSEMBLY |
| 38 | 5996171 | MO PCB ASSEMBLY |
| 39 | 5995051 | CC.PCB ASSEMBLY |
| 40 | 5995113 | E P.C.B ASSEMBLY |
| 41 | 6871224 | UPRER COVER |
| 42 | 6869712 | BOTTOM COVER |
| 43 | 6056951 | BUTTON |
| 44 | 7781581 | BT FLAT SCREW-3MMDX10MM |
| 45 | 6866582 | HOLDER |
| 46 | 6866572 | HOLDER |
| 47 | 6866661 | COVER |
| 48 | 6950391 | LENS |
| 49 | 6535923 | SPRING |
| 50 | 0744304 | SCREW-2.6MMDX4MM |
| 51 | 6866721 | HOLDER |
| 52 | 7376901 | BRACKET |
| 53 | 7376891 | PLATE |
| 54 | 8691312 | BT BIND SCREW-2.6MMDX12MM |
| 55 | 8699308 | BT BIND SCREW-2.6MMDX8MM(BLACK) |
| 56 | 6590472 | EYE CAP |
| 57 | 6292971 | KNOB |
| 58 | 7376981 | ARM |
| 59 | 7554712 | SCREW |
| 60 | 7230902 | E RING |
| 61 | 7771692 | WASHER |
| 62 | 7788272 | WASHER |
| 63 | 6636122 | CRT HOLDER |
| 64 | 6959653 | MIRROR |
| 65 | 6535941 | SPRING |
| 66 | 5310691 | PICTURE TUBE |
| 67 | 5272091 | DELAY LINE |
| 68 | 6590501 | RUBBER (N) |
| 69 | 7376801 | BRACKET (L) |
| 70 | 7759781 | SPACER |
| 71 | 7376811 | BRACKET (F) |
| 72 | 7788361 | WASHER |
| 73 | 7376851 | PLATE |
| 74 | 6690572 | JACK METAL |
| 75 | 8691308 | BT SCREW-2.6MMDX8MM |
| 76 | 7681321 | SPACER |
| 77 | 0741304 | BIND SCREW-2.6MMDX4MM |
| 78 | 0744308 | SCREW-2.6MMDX8MM |
| 79 | 5998171 | S PCB ASSEMBLY |
| 80 | 5998172 | P PCB ASSEMBLY |
| 81 | 5996181 | EP PCB ASSEMBLY |
| 82 | 7062961 | OPERATING GUIDE |
| 83 | 6656114 | PLATE |
| 84 | 8741404 | BIND SCREW-3MMDX4MM |
| 85 | 7758732 | SPACER |
| 86 | 7459971 | PLATE |
| 87 | 6536111 | SPRING |
| 88 | 4615581 | LABEL |

| SYMBOL-NO | P-NO | DESCRIPTION |
|---|---|---|
| | | FOR FINAL ASSEMBLY |
| 89 | 4615341 | LABEL |
| 90 | 6866842 | LENS LOCK |
| 91 | 6866852 | LENS RING |
| 92 | 7673141 | CUSHION |
| 93 | 7759641 | SPACER |
| 94 | 7786709 | SPACER |
| 95 | 7746441 | SPACER |
| 96 | 5899304 | CONNECTOR |
| 97 | 7678561 | EVF CUSHION |
| 98 | 7682092 | SPACER |
| 99 | 6959691 | CRYSTAL |
| 100 | 7598335 | LENS MOUNT |
| 101 | 6973772 | FRAME |
| 102 | 7379501 | PLATE |
| 103 | 6520321 | SPRING |
| 104 | 6590841 | RUBBER (A) |
| 105 | 6590851 | RUBBER (B) |
| 106 | 8812231 | WASHER - 2MMD |
| 107 | 7782141 | SCREW |
| 108 | 8741405 | SCREW - 3MMD X 5MM BIND |
| 109 | 8721406 | FLAT SCREW-3MMDX6MM |
| 110 | 0741303 | BIND SCREW-2.6MMDX3MM |
| 111 | 7379331 | SHIELD CASE |
| 112 | 7485933 | SHIELD |
| 113 | 7682271 | SHIELD |
| 114 | 7379263 | SHIELD CASE |
| 115 | 6867001 | GRIP (R) |
| 116 | 6056811 | BUTTON |
| 117 | 6056772 | BUTTON |
| 118 | 6056781 | BUTTON |
| 119 | 6292931 | GRIP KNOB |
| 120 | 7740872 | BELT |
| 121 | 6867012 | GRIP (L) |
| | | FOR PACKING MATERIAL |
| 122 | 7864261 | UPRER CUSHION |
| 123 | 7864271 | BOTTOM CUSHION |
| 124 | 7935632 | CARTON BOX |



## Screw classification




| Abbreviation | Name | Shape |
|---|---|---|
| No symbol | Brazier head | |
| P | Pan head | |
| B | Binding head | |
| O | Oval countersunk head | |
| F | Flat countersunk head | |

| Abbreviation | Name | Shape |
|---|---|---|
| No symbol | Machine screws (clamps without tapping) | |
| t | Tapping (clamps with tapping) Type 1 | |
| T | Tapping (clamps with tapping) Type 2 | |
| † | Forming tight (for metal) | |

Note: Since the forming tight screw tightens while self-tapping, machine screws can be replaced by tapping screws.

Washers and Nuts

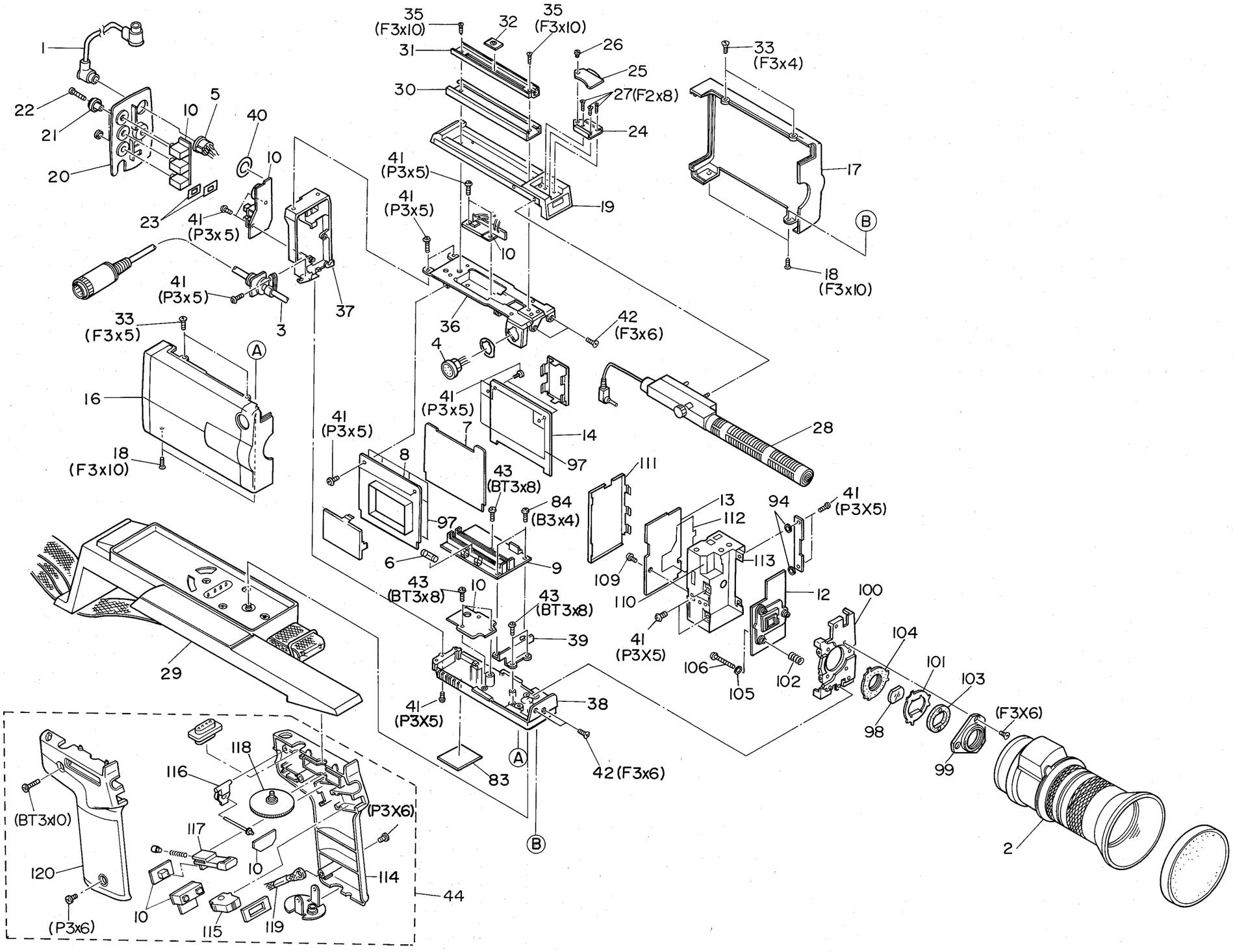
| Abbreviation | Name | Shape |
|---|---|---|
| W<br>SW<br>LW | Washer<br>Spring washer<br>Locking washer | |
| E | E-ring | |
| N | Nut | |

Note: Internal dia. is indicated for nuts and washers.

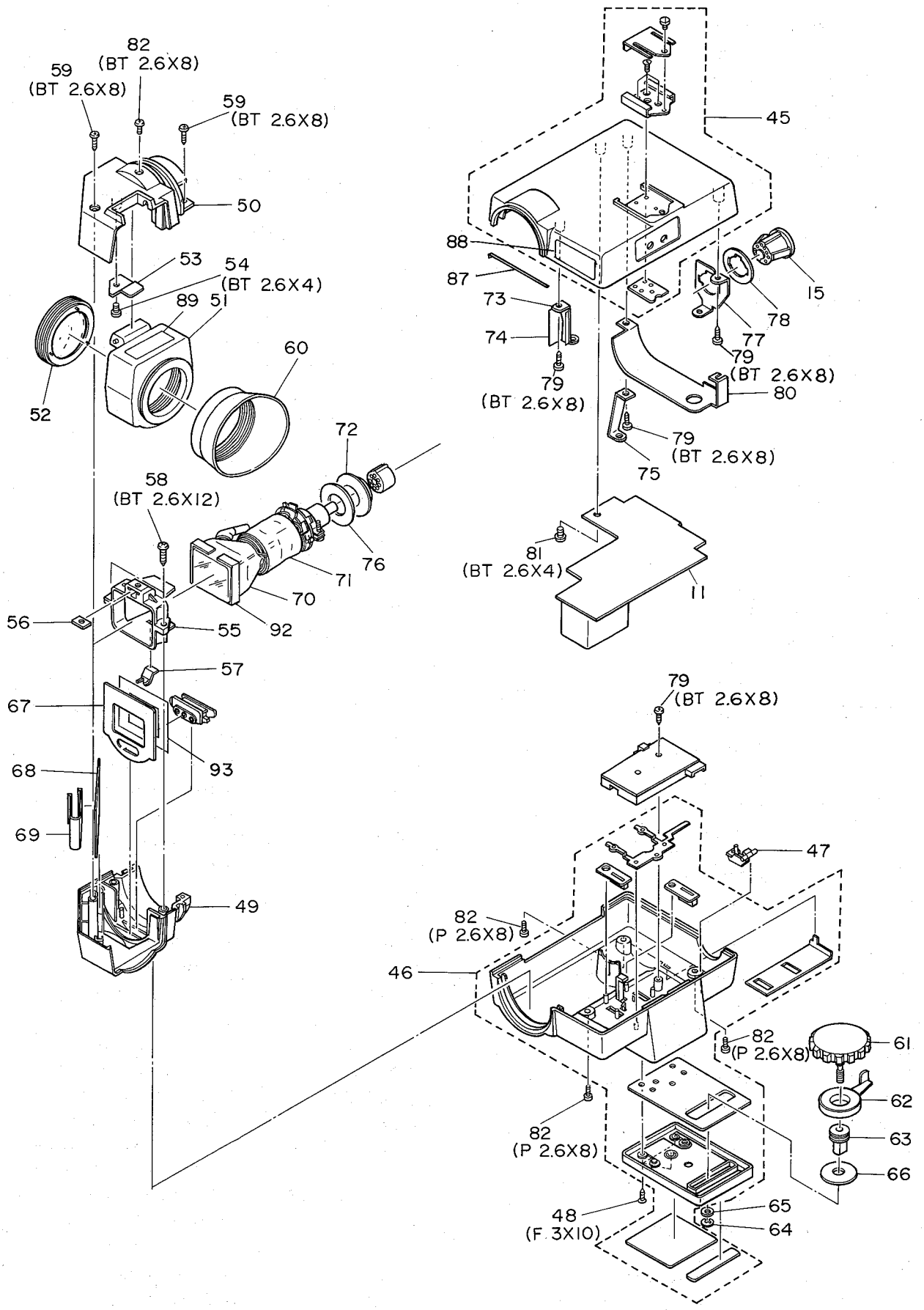
| SYMBOL-NO | P-NO | DESCRIPTION |
|---|---|---|
| | | MISCELLANEOUS |
| 1 | 5899505 | EVF CABLE |
| 2 | 6959711 | ZOOM LENS |
| 3 | 5880981 | CABLE |
| 4 | 5899314 | LENS CONNECTOR |
| 5 | 5899305 | EVF CONNECTOR |
| 6 | 5720174 | FUSE 630MA |
| 7 | 5998192 | M PCB ASSEMBLY |
| 8 | 5998191 | LI PCB ASSEMBLY |
| 9 | 5996171 | MO PCB ASSEMBLY |
| 10 | 5995051 | CC.PCB ASSEMBLY |
| 11 | 5995113 | E P.C.B ASSEMBLY |
| 12 | 5998171 | S PCB ASSEMBLY |
| 13 | 5998172 | P PCB ASSEMBLY |
| 14 | 5996181 | EP PCB ASSEMBLY |
| 15 | 5899304 | CONNECTOR |
| | | FOR FINAL ASSEMBLY |
| 16 | 6109416 | SEDE CASE (L) |
| 17 | 6020044 | SIDE CASE (R) |
| 18 | 7781582 | FALT SCREW-3MMDX10MM(BLACK) |
| 19 | 6109435 | TOP COVER |
| 20 | 6862836 | SWITCH PANEL |
| 21 | 6291291 | KNOB |
| 22 | 7782131 | SPECIAL SCREW |
| 23 | 6690581 | SWITCH COVER |
| 24 | 7374474 | ACCESSORY SHOE |
| 25 | 6535153 | SPRING |
| 26 | 7547833 | SCREW |
| 27 | 8721106 | SCREW (2X8) |
| 28 | 5421792 | MICROPHONE |
| 29 | 7084781 | SHOULDER |
| 30 | 6672151 | GUIDE |
| 31 | 6866681 | COVER |
| 32 | 6866672 | PLATE |
| 33 | 8721404 | FLAT SCREW 3MMD X 4MM |
| 34 | 8699308 | BT BIND SCREW-2.6MMDX8MM(BLACK) |
| 35 | 8724410 | FELT SCREW-3MMDX10MM(BLACK) |
| 36 | 6973752 | FRAME |
| 37 | 6973764 | REAR FRAME |
| 38 | 6106003 | BOTTOM COVER |
| 39 | 7378621 | PCB BRACKET |
| 40 | 6690572 | JACK METAL |
| 41 | 8741405 | SCREW - 3MMD X 5MM BIND |
| 42 | 8721406 | FLAT SCREW-3MMDX6MM |
| 43 | 8691408 | BIND TAPPING SCREW-3MMDX8MM (BLACK) |
| 44 | 6871251 | GRIP ASSEMBLY |
| 45 | 6871224 | UPRER COVER |
| 46 | 6869712 | BOTTOM COVER |
| 47 | 6056951 | BUTTON |
| 48 | 7781581 | BT FLAT SCREW-3MMDX10MM |
| 49 | 6866582 | HOLDER |
| 50 | 6866572 | HOLDER |
| 51 | 6866661 | COVER |
| 52 | 6950391 | LENS |
| 53 | 6535923 | SPRING |
| 54 | 0744304 | SCREW-2.6MMDX4MM |
| 55 | 6866721 | HOLDER |
| 56 | 7376901 | BRACKET |
| 57 | 7376891 | PLATE |
| 58 | 8691312 | BT BIND SCREW-2.6MMDX12MM |
| 59 | 8699308 | BT BIND SCREW-2.6MMDX8MM(BLACK) |
| 60 | 6590472 | EYE CAP |
| 61 | 6292971 | KNOB |
| 62 | 7376981 | ARM |
| 63 | 7554712 | SCREW |
| 64 | 7230902 | E RING |
| 65 | 7771692 | WASHER |
| 66 | 7788272 | WASHER |
| 67 | 6636122 | CRT HOLDER |
| 68 | 6959653 | MIRROR |

## EXPLODED VIEWS

### Camera



## Electronic viewfinder



| SYMBOL-NO | P-NO | DESCRIPTION |
|---|---|---|
| 69 | 6535941 | SPRING |
| 70 | 5310691 | PICTURE TUBE |
| 71 | 5272091 | DEF COIL |
| 72 | 6590501 | RUBBER (N) |
| 73 | 7376801 | BRACKET (L) |
| 74 | 7759781 | SPACER |
| 75 | 7376811 | BRACKET (F) |
| 76 | 7788361 | WASHER |
| 77 | 7376851 | PLATE |
| 78 | 6690572 | JACK METAL |
| 79 | 8691308 | BT SCREW-2.6MMDX8MM |
| 80 | 7681321 | SPACER |
| 81 | 0741304 | BIND SCREW-2.6MMDX4MM |
| 82 | 0744308 | SCREW-2.6MMDX8MM |
| 83 | 6656114 | PLATE |
| 84 | 8741404 | BIND SCREW-3MMDX4MM |
| 87 | 6536111 | SPRING |
| 88 | 4615581 | LABEL |
| 89 | 4615341 | LABEL |
| 92 | 7673141 | CUSHION |
| 93 | 7759641 | SPECER |
| 94 | 7786709 | SPECER |

| SYMBOL-NO | P-NO | DESCRIPTION |
|---|---|---|
| 97 | 7682092 | SPACER |
| 98 | 6959691 | CRYSTAL |
| 99 | 7598335 | LENS MOUNT |
| 100 | 6973772 | FRAME |
| 101 | 7379501 | PLATE |
| 102 | 6520321 | SPRING |
| 103 | 6590841 | RUBBER (A) |
| 104 | 6590851 | RUBBER (B) |
| 105 | 8812231 | WASHER - 2MMD |
| 106 | 7782141 | SCREW |
| 109 | 0741303 | BIND SCREW-2.6MMDX3MM |
| 110 | 7379331 | SHIELD CASE |
| 111 | 7485933 | SHIELD |
| 112 | 7682271 | SHIELD |
| 113 | 7379263 | SHIELD CASE |
| 114 | 6867001 | GRIP (R) |
| 115 | 6056811 | BUTTON |
| 116 | 6056772 | BUTTON |
| 117 | 6056781 | BUTTON |
| 118 | 6292931 | GRIP KNOB |
| 119 | 7740872 | BELT |
| 120 | 6867012 | GRIP (L) |

## HOW TO READ ABBREVIATIONS

| | |
|---|---|
| AUDIO OUT | Audio signal output |
| AUDIO GND | Audio circuit ground |
| AUDIO IN | Audio signal input |
| B | Color signal BLUE |
| B-Y | B-Y color difference signal |
| CP | Clamp pulse |
| CLC | Clock cancel signal |
| CLK 7.2 MHz | 7.2 MHz clock pulse |
| CLK 14 MHz | 14 MHz clock pulse |
| COMP + | Comparison signal + (Positive) |
| COMP – | Comparison signal – (Negative) |
| DRIVE ⊕ | Iris drive signal ⊕ |
| DRIVE ⊖ | Iris drive signal ⊖ |
| DAMP ⊕ | Iris damper signal ⊕ |
| DAMP ⊖ | Iris damper signal ⊖ |
| EAR PHONE | Earphone signal |
| ENCR | Encoder |
| EVF 12V | Electronic viewfinder +12V |
| EVF VIDEO | Electronic viewfinder video signal |
| F.F 1 | Flip flop signal No. 1 (Positive trigger) |
| F.F 2 | Flip flop signal No. 2 (Negative trigger) |
| H. DEF | Horizontal deflection |
| H. BF | Horizontal burst flag pulse |
| IRIS DET | Iris detection signal |
| PS 12V | Power save circuit 12V |
| PS 9V | Power save circuit 9V |
| PS | Power save signal |
| $\overline{\text{REC}}$ 9 | Except recording 9V |
| REMOTE | Remote control signal |
| R-Y | R-Y color difference signal |
| SC | Sub carrier |
| SYNC | Synchronize signal |
| TERE ⊕ | Tele drive power ⊕ |
| V. DEF | Vertical deflection |
| VIDEO I/O | Video signal In/Out |
| VIDEO COMP | Video comparison signal |
| VIDEO OUT | Video signal output |
| VIDEO GND | Video circuit ground |
| WHT. BAL COMP ⊕ | White balance comparison signal ⊕ |
| WHD | Wide horizontal drive pulse |
| WHT BALANCE | White balance control signal |
| WIDE ⊕ | Wide drive power ⊕ |
| Y | Luminance signal |
| ZOOM | Zooming signal |
| V. AGC | AGC voltage |